THE

MARYLAND

MEDICAL AND SURGICAL JOURNAL,

AND

OFFICIAL ORGAN OF THE MEDICAL DEPARTMENT

OF THE

Army and Navy of the United States.

VOLUME I.

Qui ante nos ista moverunt, non domini nostri sed duces sunt. Patet omnibus veritas; nondum est occupata; multum ex illa etiam futuris relictum est.—*Seneca, Epist.* 33.

PUBLISHED UNDER THE AUSPICES OF THE

Medical and Chirurgical Faculty of Maryland.

EDITORIAL COMMITTEE.

G. C. M. ROBERTS, M. D.
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BALTIMORE:

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MDCCCXL.

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To the Profession and the Subscribers of this Journal.

It has been thought most advisable, for various reasons, to issue the first number of this Journal as the January number.

It was originally contemplated to issue it in October, and the greater part was in the press at that time, but unexpected delays induced the Committee to defer the publication, and the advantages of commencing a periodical with the new year are so evident, that it is believed the change will meet with general approbation.

To Correspondents. The Maryland Medical and Surgical Journal will be published regulary on the 1st of January, April, July and October. All original communications *from a distance* intended for insertion, should be in hand within one month after the issue of each number. Those intended for the second number will consequently be expected by the 1st of February, or as early as possible before that time.

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ADVERTISING SHEET.

July, 1840.

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Not exceeding twelve lines,	$1 00
For a quarter page,	2 00
" half a page,	3 50
Over half and not exceeding a whole page,	6 00

ALBANY MEDICAL COLLEGE.

INCORPORATED BY THE LEGISLATURE OF NEW YORK, 1839.

THIS new institution has commenced under the most favorable auspices, and promises great permanence and usefulness. A spacious building on Capitol Hill, with extensive grounds, for enlargement, has been appropriated to the college, by the honorable corporation of the city for twenty years, free of all expense; and the trustees have improved and adapted the edifice to the purposes of the college with singular taste and beauty, so that it is considered quite equal to any other college building in the United States.

During the past winter the Faculty were organized, a liberal charter obtained, and a full course of lectures was delivered, to a class of sixty-five students, at the conclusion of which, thirteen gentlemen received the degree of Doctor of Medicine.

The Faculty consists of the following gentlemen:

ALDEN MARCH, M.D. *Professor of Surgery, and President of the Faculty.*

JAMES H. ARMSBY, M.D. *Professor of Anatomy and Physiology; Registrar of the Faculty.*

DAVID M. REESE, A.M. MD. *Professor of the Theory and Practice of Physic and Clinical Medicine.*

EBENEZER EMMONS, M.D. *Professor of Chemistry and Natural History.*

GUNNING S. BEDFORD, M.D. *Professor of Obstetrics and Diseases of Women and Children.*

DAVID M. McLACHLAN, M.D. *Professor of Materia Medica and Pharmacy.*

THOMAS HUN, M.D. *Professor of the Institutes of Medicine.*

AMOS DEAN, Esq. *Professor of Medical Jurisprudence.*

The next course of lectures will commence in the first week of October next, and continue sixteen weeks. The fee for the whole course is sixty-five dollars, and the expenses for boarding of students need not exceed three dollars per week.

Every facility will be afforded for cultivating anatomy and clinical medicine. A City Hospital has been recently incorporated, which, with the Alms-House Infirmary, will furnish ample opportunities for witnessing disease. The extensive collection of anatomical preparations, morbid specimens, models, casts, drawings, plates, &c. both in human and comparative anatomy, cannot be exceeded in the country; and in the cabinet of geology, mineralogy, conchology, and zoology, a comparison of the contents of the spacious museum is invited, with that of any other sister institution.

Graduates of other incorporated colleges, are required to pay the matriculation fee only, which will entitle them to free admission to the lectures and museum.

The fee for the whole course, will not exceed	70 dollars.
Fee for Matriculation,	5 "
Fee for graduation,	2 "

Any further information may be obtained, by addressing, post paid, to either of the professors, or to the undersigned.

ALDEN MARCH, *President.*
J. H. ARMSBY, *Registrar.*

ADDRESS

OF THE

EDITORIAL COMMITTEE.

THE Medical and Chirurgical Faculty of Maryland, at its annual session in the month of June, after due and deliberate reflection, having determined that a Journal, devoted to the interests of Medical science, was needed in this city and state, appointed the undersigned a committee to superintend the issuing of such a periodical.

With a regularly and legally organized Faculty throughout the state, numbering in its ranks members, in no point behind those of our sister states, in their attachment to the profession of their choice; talent to sustain its interests; diligence and zeal in meeting the claims of the public upon them; with a city containing its six hospitals and two colleges, all in course of successful operation, and facilities for the examination of disease in all its varieties, quite as extensive as those in other communities, the committee have entered upon the discharge of the arduous duties devolving upon them as the conductors of this Journal, animated with the prospect of success. We have done so, by no means unaware of the vast amount of labor attendant upon, and the host of difficulties which surround, such an undertaking. We feel, indeed, that in the midst of the multitudinous engagements which throng us individually in the pursuit of our profession, we are unprepared to discharge as faithfully as should be, the claims now upon us. Having, however, been called to the post we occupy, not by choice or seeking, but by the unanimous suffrages of our brethren, who have thereby given us the

assurance of their continuance and support in our labor, we could not shrink from the call. Of our individual talent for the work, we can say nothing; our pages must speak for us in this particular. We, however, pledge our best ability to sustain the undertaking, until those who called us to the post shall have an opportunity to pass upon our work, and either continue us in the relation we now hold to them, or supersede us by the appointment of others better qualified to meet their views and wishes.

We cheerfully undertake the duties imposed upon us, because we believe that we shall not be left to contend, single-handed, for the object in view. Having a claim for assistance upon our brethren throughout the city, state, and United States, we doubt not *they* will *as promptly* meet *that claim*, as *we* have *pledged ourselves* to our work. To them we now make our appeal, confident that it will be responded to with promptness, and the pages of our ensuing numbers enriched by their contributions.

Our course shall be fair and open; our object and desire is to afford another medium through which our junior members, in association with their aged and more experienced brethren, may have an opportunity of spreading before the public the result of their labor and reflections.

We hope to be able to give, in addition, such a digest of all foreign and domestic matters in connexion with the science, as will be alike pleasing and profitable.

We have done. Our appeal, in company with the first number of our work, is now before you. We commend them both to your interest and your favor.

The State Faculty, at its last meeting, passed the following resolution:

Resolved, That it be respectfully recommended to the physicians of the State ef Maryland to form County Medical Societies auxiliary to the Medical and Chirurgical Faculty, in every county of the state.

We consider this more calculated, if acted on with proper union and energy by the profession throughout the state, to produce

the most important effects on the dignity and best interest of the profession; and we feel it a duty to urge upon every individual member of the faculty the importance of carrying out the recommendation with energy and spirit. We would respectfully suggest to some half dozen of the physicians of the counties and towns to call general meetings of the members of the medical profession in each county, on the first court day after this notice, and after the meeting is properly organized, to appoint a committee to draw up a Constitution and By-Laws for the Medical Society of ——— County, auxiliary to the State Faculty, if enough members be got together to fill the offices of the society, that it shall be organized at the appointed time, due notice of which meeting having been given in the public papers. The great advantage of such an organization of any profession is so very evident, that it would be a waste of time to point them out. We will mention—a better state of feeling from regular meetings of any town or county. Another advantage would be, that matters pertaining to the best interests of the profession—the regulating of fees, consultations, points af etiquette, &c. could be discussed and settled. But there would be no question of the many advantages necessarily arising from this measure, if generally adopted; we would, therefore, urge the formation of a Medical Society in each county of the state, to meet annually at the county seat to elect officers, hear an annual oration, read reports of interesting cases, and have a free interchange of opinions and views between the members of the society. If deemed proper, quarterly meetings shall be also held, and the officers of the society be a president, vice-president, secretary, orator, treasury, and a court of honor, of three members; and that there be annually elected five delegates to represent the county society in the meetings of the Medico-Chirurgical Faculty of Maryland.

We hope the profession will take up this important matter immediately, and send us the report of the proceedings in each county, the officers of the society, and in time for publication in the next number of the Journal.

☞ By reference to the prospectus and circular accompanying this number, those who are disposed to aid us in our efforts to promote the interests of the profession throughout the state, will become acquainted with our terms of publication. We have fixed the subscription at half the amount of other medical periodicals, because we have thought it would be more generally acceptable by being only half the usual size. We shall, however, occasionally give more than the amount of pages furnished in the prospectus, in the form of "Extra Limits." We regret that there has been so much delay. It has been dependent upon a combination of circumstances which the committee could not control. We hope, however, to issue the future numbers with more regularity.

As the committee are determined to make the appearance, as well as the matter of the Journal, creditable and useful, by the addition of lithographs, wood cuts, &c. &c., and as this cannot be effected without considerable expense, we hope the friends of the profession in and out of the city and state, will immediately forward their subscriptions *in advance*, and in money current in our city. Our friends individually, can do this, at but little trouble and expense to themselves, whilst inattention to it will be productive of serious losses.

☞ To our correspondents.—We acknowledge gratefully the very flattering promises of aid and support which have already been given us, by distinguished gentlemen from abroad. We shall look with no little interest for their communications immediately, for our ensuing number. Although the committee cannot at present promise any remuneration for articles furnished for the pages of the Journal, they nevertheless announce it as their determination to do so, as soon as the prospects of pecuniary success will permit. It is not our wish or intention to appropriate what may be received, in any other way than to forward the interests of the profession and science generally. To this

object the whole proceeds shall be faithfully applied. We wish it distinctly understood, that the labor of the committee is entirely gratuitous.

☞ All letters and moneys received will be regularly announced on the cover of the Journal. Our friends at a distance will look on this as their vouchers for all such receipts.

Communicated for the Maryland Medical and Surgical Journal.

MESSRS. EDITORS:

As the time is near at hand when the National Convention of Physicians will again assemble at Washington, for the purpose of giving us a new Pharmacopœia, or of perfecting the old one, I would respectfully propose for consideration, that the final action of the convention on the important matter, be postponed to January, 1841, and I do hope that the delegates from our city, one of whom I recognize as among your number, will bring forward and support the motion. The impression seems to prevail, that there will be but a thin attendance of members at the coming convention; this is one reason for the adjournment, but it is among the least;—without meaning any disparagement of the knowledge of physicians of the manipulations of Pharmacy, I must in candor say, as my own humble and clear conviction, that the past failures of conventions entirely of physicians, in framing a national standard work, is referrible mainly to the defectiveness of manner in which those conventions have been constituted. The plan should be so extended, that the respectable and intelligent apothecaries of the country, especially of the larger cities, be invited to take seats in the convention and participate in its discussions.

The practical knowledge of those who make pharmacy a business, united to the general science and research of physicians, will give us a Pharmacopœia, such as the country may well be proud of. Now it is with this view, that I make the suggestion of postponement; a year's time will be ample for preparation, and

for the necessary general excitement of every branch of the profession in every part of the nation, whereby the talents and interest of all may be secured and directed to the accomplishment of the great work. The necessity of such a work is so obvious, both from what we have, and from what we have not, that I think it superfluous to do more at present than make this note of the idea, which has arisen in my mind, principally by a perusal of some of the pages of the late National Pharmacopœia of France, "*Compiled by order of the Government, by a committee, consisting of the Professors of the Faculty of Medicine, and of the School of Pharmacy of Paris.*" The result of their joint labors and combined efforts has been, that France now possesses, in all that concerns the important requisites of *simple* and *correct* nomenclature, *uniform* and *practical* formula, the very best dispensatory extant. Why, then, should we not profit by such experience? We already have much in our country; we have, likewise, talent and industry;—all that is wanted is to call them all into action; give it but right direction, and we shall soon have a better one than even the far-famed Codex of France. Already I perceive, in reading a review of that Codex, published in the fourth volume of the Philadelphia Journal of Pharmacy, an original and important suggestion of improvement in one of the commonest departments of Pharmacy. Permit me, Messrs. Editors, in conclusion, to call your greater talents and leisure to this subject. It is well worthy of both, and of all the consideration you may bestow on it.

Baltimore, November 29, 1839. C.

☞ ARMY AND NAVY.—We feel highly gratified in being able to state to our friends, that the pages of the Journal will occasionally be enriched by communications from these branches of our national defence. The Secretary of the Navy and Surgeon General of the Army, on application for permission to announce the Journal as their Official Medical Organ, have promptly consented "to put at our disposal from time to time," such reports of value as may be proper to spread before the public. This fact has already been the source of much gratification to those Medical officers of the Army and Navy who have been made acquainted with it, and elicited their promise of support.

MEDICAL AND CHIRURGICAL FACULTY

OF

MARYLAND.

At the annual convention of the Faculty, held in Baltimore on the 3d, 4th and 5th of June, 1839, the following officers were elected for the ensuing year:

Dr. MAXWELL McDOWELL, *President.*
" ROBERT A. DURKEE, *Recording Secretary.*
" JOHN L. YEATES, *Corresponding Secretary.*
" J. I. COHEN, *Treasurer.*
" SAMUEL CHEW, *Librarian.*
" JOHN L. YEATES, *Orator.*

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Examiners for the Eastern Shore.

Drs. Tristram Thomas, Jas. Bordley, Peregrine Wroth, G. Martin, Alex. H. Briscoe.

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First	Ward,	Dr. H. Inloes,		Seventh	Ward,	Dr. R. Sexton;	
Second	do.	"	Samuel B. Martin;	Eighth	do.	"	J. A. Schwartz;
Third	do.	"	A. Clendinen;	Ninth	do.	"	R. H. Thomas;
Fourth	do.	"	Amasa Kellogg;	Tenth	do.	"	F. E. Chatard;
Fifth	do.	"	Peter Snyder;	Eleventh	do.	"	Alex. C. Robinson;
Sixth	do.	"	Charles Maguire;	Twelfth	do.	"	J. Armitage.

CITY OF ANNAPOLIS.—Dr. Dennis A. Claude, Dr. John Ridout.
CITY OF FREDERICK.—Dr. C. L. Goldsborough, Dr. William Waters.

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SOMERSET COUNTY.—Drs. S. K. Handy, S. J. S. Kerr.
WORCESTER COUNTY.—Drs. T. S. Martin, J. P. Giles.

The following gentlemen have been admitted members of the Medical and Chirurgical Faculty of Maryland, and have received a license from the Western Board to practice Medicine in this State since the 5th of June, 1839.

John Romig, M.D.; David S. Gittings, M.D.; Adolph F. Haynel, M.D.; Grafton Tyler, M.D.; Josiah Harding, M.D.; Augustin Huet, M.D.; Washington R. Handy, M.D.; Henry Hermann, L.M.; Hillary R. Pitts, M.D.

Three hundred dollars were appropriated to the Library for the ensuing year.

COMMITTEE ON EXPERIMENTS,

With vaccine and various matter and the grease of horses.

Drs. John H. Briscoe, J. J. Graves, Samuel Chew, John L. Yeates, Robert A. Durkee.

COMMITTEE ON THE ERECTION OF A MEDICAL HALL.

Drs. Alexander C. Robinson, John L. Yeates, J. R. W. Dunbar, Richard Steuart, John Fonerden, John H. Briscoe, Samuel George Baker.

COMMITTEE ON REVIEW

Of the progress and improvements in American and Foreign Medicine and Surgery.

Drs. John R. W. Dunbar, John Fonerden, George S. Gibson, Alexander C. Robinson, Samuel Annan, Nathan R. Smith, William N. Baker.

PROVISIONAL ELECTION OF DELEGATES

To a National Medical Convention, whenever convened.

Drs. John R. W. Dunbar, Henry Howard, Maxwell M'Dowell, Ashton Alexander, John Fonerden, John H. Briscoe, Nathan R. Smith, Joel Hopkins, John L. Yeates.

DELEGATES TO A MEDICAL CONVENTION,

To be held in Washington, 1840.

Drs. Peregrine Wroth, John Fonerden, J. I. Cohen.

EDITORIAL COMMITTEE,

For the Publication of a Medical Journal.

Drs. George C. M. Roberts, Samuel G. Baker, James H. Millar, John R. W. Dunbar, Nathaniel Potter, Robert A. Durkee.

The Convention adjourned to the first Monday in September next.

ROBERT A. DURKEE, M.D. *Recording Secretary.*

Delegates to the National Convention to be held at Washington, 1840.

From Washington University of Baltimore—
PROFESSORS MONKUR, DUNBAR and FOREMAN.

From the Faculty of Physic of the University of Maryland—
PROFESSORS N. POTTER, SAMUEL G. BAKER and W. E. A. AIKIN.

Yr affectionately
Sam'l Baker

SAMUEL BAKER, M.D.

THE

MARYLAND

Medical and Surgical Journal.

October, 1839.

MEMOIR OF SAMUEL BAKER, M.D.

LATE PROFESSOR OF MATERIA MEDICA, IN THE UNIVERSITY OF MARYLAND, &c. &c.

The history of the most distinguished members of the medical profession is, unfortunately, too often a record of self-immolation. The ceaseless round of bodily toil and labor, and the constant mental anxiety imposed upon those who are engaged in the active duties of practice, necessarily impair the vigor of their constitution and seal its early decay. They attain the ripeness and maturity of life, the period for the enjoyment of the fruits of their earlier labors, only to pass rapidly through its short moments to the grave. When to this career of mental and bodily exercise we find another superadded, when we find physicians besides living this life before the world, stealing away the hours of repose for the study of their profession, or still more, for devotion to the holy purposes of medical instruction, we are often called upon to mourn over the departed spirit called away even in the budding spring-time of its existence. Within a few years our own state has followed to the tomb, a Godman, a Wells, and a De Butts, all in the very youth time of life, although far advanced in the walks of science.

was married to Sarah, the daughter of the Rev. John Dickens. Responsibilities in life, serious and harrassing, now came rapidly upon him, for six months had not elapsed, before he was elected professor of materia medica, in the then College of Medicine, afterwards the University of Maryland. A few bold and enterprising individuals had combined for the purpose of raising an institution for medical education, in the city of Baltimore. They selected Dr. Baker, although only in the first year of his professional life, to unite with them in the first course of lectures delivered under their charter. This mark of confidence from his own profession, seemed but a precursor of the bright course of success which awaited him. From the moment of his entrance into the university, its history became identified with his labors, his talents, and his zeal. In its pecuniary difficulties, which were of the most serious character, the risks and sacrifices of himself and his colleagues, rendered every hour to them, one of anxiety. The elegant buildings of the university, which now stand at the western end of the city, will ever be a monument of the untiring exertions of those who laid its corner-stone, watched over its superstructure, and worked out its triumphant success. He was the professor of materia medica and therapeutics, and in his lectures, without confining himself strictly to the ordinary matter of his department, he availed himself of its therapeutical division to convey to the class, in the most lucid style, his principles of the practice of medicine. His style of delivery, as well as his whole manner, was very rapid, to conform somewhat, as it seemed, with the activity of the operations of his mind. It has been said of him, in an eloquent biography in the Baltimore Athenæum, from the pen of Dr. John Fonerden, of our city, that, "in his lectures, during the mention of medical facts that had come under his own notice, and when giving expression to the original reflections of his own mind, there was often in the lecture room, a breathless silence, which indicated the profound respect entertained by the class, for the judgment of their preceptor." He was conscientiously careful at all times, by his own example, as well as by precept, to impress upon the young gentlemen, the importance of a constant regard to their high moral character.

Such was Dr. Baker, as a public teacher. But it is in our private intercourse with men, that we learn to form a true esti-

mate of their value. True worth and eminence, is that which not only does not suffer by intimacy or approach, but which displays, when most thoroughly known, the richest mines of thought—original reflections fresh and free, as they come from the mind itself. It was in the capacity of a private preceptor, that Dr. Baker was, perhaps, most distinguished and beloved. The gentlemen who received their first impressions of science in his well remembered office, can never forget the parental kindness of the man, or treasure too long the invaluable instructions of the professor. In his private examinations, which were always numerously attended, the lively portrait of disease, the brightness of the eye and the clearness of the mind that pointed so directly to the prompt means of remedy, rendered them a favorite and loved resort. The practical instruction learnt from his lips, is now dearly valued by many who have since been, by fortune, spread over the whole continent, and who are now diffusing the success of his experience. His opinions will ever be remembered by them with reverence,—his memory, with affectionate regard.

His career as a public professor, although not as a private teacher, terminated in 1833. The successive, unpleasant difficulties, which harrassed the university, rendered his situation not agreeable, and besides, the demands upon his time from his practice, were such as to render it necessary for his health, to retire from this station.

Having early become known to his fellow-citizens, and occupying a public situation of responsibility, he had acquired, at a very early period of life, an extensive practice, which increased very largely, until the time of his death, on the sixteenth of October, 1835, at the age of fifty years.

Bold, fearless, untiring, he had, besides the ordinary labors of his profession, passed through many epidemics of the yellow fever, several times almost its victim; and in two fearful visitations of the Asiatic cholera, while many shrunk and trembled, he was found, day and night, struggling to stay its ravages. Active in his professional life, from its very germ, successful in almost every enterprise, it is surprising to say, that he lived and died with but few, if any, enemies in his profession. His conduct towards his brethren, was without variation, candid and courteous. In difference of opinion he was modest, but in the support of his views, firm and

uncompromising. He was regarded by the elder members, with kindness and friendship, by the younger, with respect and reverence.

He had been, for some time, president of the Medical Society of Baltimore, and was, at the time of his death, president of the Medico-chirurgical Society, a society constructed partly at his own instance, for the preservation of honorable medical intercourse, as well as for the promotion of medical science. His profession, indeed, conferred upon him every honor which it was in their power to bestow.

He has left behind him, with one of the institutions of our state, a monument of his interest in, and devotion to science, which can never be forgotten. It was through his instrumentality and at his suggestion, that the library of the Medico-chirurgical Faculty of the state, was instituted, a library perhaps more select and rich in value, for its extent, than any other in the country.

He was one of the attending physicians at the Baltimore Infirmary, for thirteen years. The widely extended reputation of this institution, has long since made known his ability and success there. There are yet living witnesses in that house of charity, the benevolent ladies who watch over the sick, whose eyes as they have often followed him in his rounds with watchful confidence, now often shed a tear of affection for his memory constantly fresh to their minds amid the very scenes of his kindness and devotion.

In private practice, his manners to his patients were kind and conciliating; at the bed side, in cases of illness, all was firmness and energy; he seemed, generally, to have decided upon his course in the rapidity of a moment, and was as bold in executing, as he had been rapid in forming his designs.

The known benevolence and philanthropy of this gentleman will ever be gratefully remembered by the citizens of Baltimore. In the private walks of life, in the varied scenes of his profession, or in the numerous institutions of public charity, his means were as freely poured out, as his heart was open and generous. The orphan, whether suffering in lone obscurity or brought to meet its companions in misfortune, within the walls of the asylum,* alike felt the benefit of his kindness and liberality.

* He was physician to the Baltimore Female Orphan Asylum from the time of its institution until his death.

Dr. Baker was a christian. His pure spirit early in life sought alliance with the things of heaven. From that period until the day of his death, he lived a christian, and the whole practice of his life was a beautiful illustration of the principles of his religion. Ardently as he was attached and devoted to the Methodist Episcopal church, of which he was a member, one of the most striking traits of his religious character, was his attachment to the boundless liberality of religious opinion. He was truly "a city set on a hill;" his light was not obscure or hidden, not transient, like the meteor's blaze, but literally a steady and a burning flame; it shed its genial rays on all around. As a member of the church of God on earth, long will his practical piety, his untiring efforts to promote her spiritual prosperity be remembered with heartfelt pleasure and sincere gratitude. Notwithstanding his pressing professional duties, his place was seldom vacant in the holy sanctuary; and in this respect, as well as others, his conduct should be a beacon light of example to the junior members of the profession.

His last illness was rapid. An extraordinary fatigue and exposure had brought on a fever, severe in its character, but although severe, it was unexpectedly precipitate in its fatal issue. His frame, which had been shaken by so many attacks of disease, and worn down by constant labor, during health, sank very suddenly. In the autopsy of his body, after death, there was found no appearance of acute disease, except an inflammation of the lining membrane of the heart, and large arteries.

In his death, science has lost a truly devoted son; religion, one of its brightest ornaments; his profession, a beloved associate; the poor, a friend always ready to minister freely to their pressing necessities; society, an important and useful member.

To him death proved indeed but a shadow, brought no sting, the grave no desolation. Calm and peaceful was his end:

> "Night dews fall not more gently to the ground,
> Nor weary, worn out winds, expire so soft."

His spirit, pure and happy, rests in heaven. He has left to his *children* and his friends the bright inheritance of his virtues. May the mantle of this Elijah rest upon the one, and the memory of his worth stimulate the others to emulate his bright career of purity, happiness and success.

A LECTURE ON SCARLATINA,

Delivered at the request of the Medico-Chirurgical Society of Baltimore, by the late Samuel Baker, *M.D., Professor in the University of Maryland, &c. &c.*

[The very fatal character assumed by this disease in the few past years, has induced us to publish this lecture. It is but little more than the result of the practical experience of its author, delivered at a time when the disease was raging with violence in our city, and the views of so eminently successful a practitioner were received with eagerness and pleasure. The spirit of inquiry which calls from every part of the country for some more successful method of treatment in this disease, has led us to add the experience of another gentleman of our city on the same subject, as he adopts an entirely different plan of management.—Eds.]

The term, scarlatina, although not sanctioned by classic refinement, is now so generally received by the medical world, that it would be deemed almost pedantic to discard it, in order to resume the more ancient but correct term, Rosalia. The restoration of this appellative we shall leave to those who may think that a reform in medical nomenclature is necessary. This disease commonly appears under three forms, viz. Scarlatina simplex, S. anginosa and S. maligna. It is generally ushered in by chilliness, nausea and vomiting, followed by fever, and in two or three days by the characteristic eruption, imparting to the skin a lobster-like redness, from which its appellation is derived. The simplest form of the disease is generally attended with sufficient reaction, to carry on that conservative process which is necessary for the restoration of health; consequently but little interference is required; the simple evacuation of offending matters from the intestinal canal and the abstraction of all stimulant articles of diet and drink, are mainly to be relied on. In some instances, when the action is so high as to endanger the different structures, depletion may be demanded, but generally speaking, this form of the disease is void of danger, unless rendered so, by the nimia diligentia medici. The heat and redness of the skin, with the necessary excitement of the pulse, which are mostly salutiferous in their tendency, are too often deemed mischievous in their nature and hastily repressed, thus disturbing that process which nature adopts for the elimination of

the cause, or, more properly, of its effects. From this indiscretion, we believe it has not unfrequently happened, that the system has become embarrassed in its operations; congestions have formed, the glands have become enlarged and the simple form of the disease has been transformed into one of fearful and threatening aspect, merely from the too great officiousness of the physician. I am aware that it may be said that depletion is necessary to prevent those ill consequences, which are the result of the excitement unduly bearing upon parts predisposed to disease. Judgment is necessary to decide whether the phenomena of the disease are just and natural, or whether they transcend the limits of safety. One cause of this error in practice, to which we have alluded, we apprehend is referable to inadvertence to the fact that scarlatina is a disease of a specific character, the result of a poisonous or deleterious influence. If it were a pure or simple inflammation, the direct influence of debilitating measures would not only be safe, but would be imperatively demanded. But when, from too great anxiety, we unduly weaken the forces of the system in its reaction against morbid poisons, we cause it to succumb under their irritation. This has often been exemplified in smallpox and measles as well as in scarlatina. Hence the remark has been made by Sydenham, that "scarlatina is a disease in name only, and only dangerous from the officiousness of the doctor." The remark is certainly too unqualified, but Sydenham we believe to have been too astute to have hazarded an observation which was not borne out by facts. Facts of this kind, I fear, have often occurred, and we have assumed to ourselves great credit for having carried our patients safely through a perilous conflict which we had, unwittingly, created for them. The pride of our profession would be often humbled, were we to perceive the instances in which our precipitancy has occasioned not only embarrassment of mind to ourselves, but deterioration of disease to our patients. He that will expose to us our errors in practice, and will show us the sources of those errors, will deserve the praise and homage of the entire profession, much more than he who can weave out a fine spun theory, however brilliant its decorations may appear.

Scarlatina S., although frequently a disease requiring little attention, always leaves the system in a most vulnerable condition. It would seem that the debility of the capillary system

renders it incapable of that healthy reaction, which is necessary to resist the vicissitudes of the atmosphere; hence it is that a slight reduction in the temperature of the air, produces effusions in the cellular tissue, glandular enlargements, and other serious consequences, not necessary to detail at this time. Hence I would infer the necessity of great prudence in clothing, and of avoiding all exposures of the person to the air, especially if it be chilling, until the convalescence be pretty firmly established; and I would suggest, also, the administration of some tonic which might lessen the liability to these troublesome and dangerous sequelæ.

The second form of this disease, scarlatina anginosa, is much more formidable than that which we have noticed. In this form, in addition to the symptoms of scarlatina simplex, as already detailed, the tonsils and fauces are much inflamed, and the mucous membranes of the contiguous surfaces, soon fall into the same condition. I am inclined to think that this form is sometimes the result of depressing causes, acting upon the system so as to hinder the regular development of the disease upon the surface,—but more frequently I should consider it as induced either by the intensity of the poison, or some depraved condition of the system, both tending to disable the resilient and recuperative powers. Under these circumstances, a circumspect course must be pursued; if the pulse be violently excited, and the aspect of the fauces show some danger of disorganization, depletion must be resorted to, general and local, but not with the same freedom that would apply to inflammation of these parts from common causes, as cold, &c. In these cases, simply disabling the heart will generally suspend the inflammation, but in the disease under consideration, if the depleting measures be prosecuted too vigorously, we may so weaken the energies of the system as to render it unequal to the efforts necessary for the evolution of the different phases of the disease. Bleeding, therefore, should be limited to that extent which should save the organs from destruction, not with the idea that we should thereby cure the disease. On this point allow me to say, that in my judgment, much mischief has been done by the excessive use of the lancet. How difficult is it to withhold the lancet when you have a hot skin, a vivid eruption, and a full and flaming pulse? Yet I am prepared to say that these symptoms do

not justify the use of the lancet; cool or tepid effusions to the surface, so as to lessen the immoderate heat, mild unirritating cathartics, and bland and cooling drinks, being in such cases generally sufficient. The appearance of the eruption will in general be an adequate guide for the practitioner.

If the skin be warm, the eruption of a lively red, such measures should be adopted as will maintain those appearances. If the skin be intensely hot, and the eruption vivid, cooling and evacuant treatment is indicated. If the eruption be of a modena color, showing a stagnation of fluid in the blood vessels, or if it should be tardy or indistinct in its appearance, with general chilliness and coldness of the extremities, warming and stimulant applications should be made to the surface, and such tonics and cordials should be administered as will give support to the system, and produce a centrifugal direction of the fluids.

Active purging with calomel, or any irritating cathartics, is generally fraught with mischief. The bowels should be kept in a soluble state, and we have means in our reach sufficient for this purpose without perturbing the entire mucous tissue of the intestines, and exhausting the powers of the general system. This practice has had, I fear, a pernicious influence by inviting the fluids to the mucous tissue, and thus favoring congestions,—giving rise to diorrhœa, and sometimes to disorganization of this delicate membrane. The employment of antimonials is also occasionally productive of the most disastrous effects in this disease. In those cases where the sensibility of the mucous tissue is much exalted, their effects are not easily controlled, unless they be exhibited with the most rigid and careful circumspection. Having found them so often treacherous under such circumstances, I have almost entirely abandoned them. All violent irritations of this mucous tissue, interrupt the regular and natural display of those symptoms, which, by their full expression, relieve the laboring system of its burthen, and permit it to pass off quietly and safely.

The local applications to the throat should be conformable to the same principles. In the early stage of the affection, when the action is high, bland, soothing, sub-acid or sub-astringent gargles, are most proper; in a more advanced stage, when the action begins to fall off, those of a more decidedly astringent and tonic character should be employed; and when sloughing or phagedenic appear-

ances manifest themselves, then we should resort to diluted mineral acids, pyrolignous acids, infusions of cayenne pepper, and oak bark.

There is, perhaps, no gargle so well adapted to relieve all the various, dangerous and troublesome conditions of the fauces and throat, in this disease, as the infusion of the cayenne.

The use of mild emetics in all these conditions, is attended with great benefit. They tend to promote and evacuate the secretions from the mucous membrane of the fauces, and thus relieve the painful constriction of these parts,—they produce a determination of blood to the surface, which facilitates the development of the phenomena of the disease, and gives very prompt relief to the patient. The ipecacuanha I have generally found to answer these indications in the best and safest manner. The diaphoretic action which follows the emesis, can be kept up by gently stimulating drinks, as the infusions of sassafras, sage, &c., when the situation of the patient does not forbid. When the character of the excitement is more active, advantage will be derived from the use of a few grains of calomel, combined with the ipecacuanha, to correct the secretions of the alimentary canal, followed by a gentle purgative, as castor oil, &c. In this state of things the use also of soda powders, saline draughts, and occasionally when the heat and thirst are very excessive, of ice, will mitigate very much the patient's sufferings.

When tumors of the glands have made their appearance, I have found signal benefit from the application of epispastics to the back of the neck. If their application be postponed to a late period of the disease, the irritation sometimes proves too severe for the vitality of the part, and consequently terminates in mortification. This effect seldom occurs, if the proper time for their employment be selected.

The third form of this disease, scarlatina maligna, is so designated from the violence and fatality of its course. The eruption, if it appear at all, is not of that healthy hue which characterises energy. The fauces and throat are very much tumefied, and of a dark color, the tonsils soon ulcerate, and the ulcerated surface rapidly assumes a sloughing appearance,—the ulceration extends to the contiguous parts, sometimes invading the larynx, destroying the function of the epiglottis, and rendering the patient liable to

suffocation in every attempt at deglutition. In addition to all this, we frequently witness, at the same time, rapid tumefaction of the external glands, rendering the death of the patient, by suffocation, almost inevitable. This constitutes the most intolerable feature of the disease, the suffering is intense, the patient asking most piteously for drink and food, and, if he is able to swallow at all, he is in danger of immediate strangulation from the passage of articles into the larynx, instead of the æsophagus. The severe conjestive condition of this form of scarlatina, very frequently destroys the patient before this terrible state of suffering supervenes.

In order to prevent these dreadful consequences, it is all-important to use all possible means to force and invite the fluids to the surface. An emetic should be immediately administered, and one which is least depressing in its effects, either the sulphate of zinc, or ipecacuanha. Sinapisms should be applied in constant succession. If the brain should appear to be the seat of decided congestion, cupping or leeching may be used on the temples before the emetic is given, and an epispastic applied immediately to the back of the neck. The carbonate of ammonia, with infusions of bark and supentaria, wine whey, brandy and water, and other stimulants in succession, are indicated to assist the reactive efforts. The bowels should be evacuated, not persecuted by cathartics as if the patient were dependent on them for safety. If saved at all, it will be by the use of means which enable the system to throw out the disease in its usual form by the use of the means I have suggested. In this form more than in any other, should the constant use of stimulant gargles be persevered in.

There is one other remedial agent which I have not yet mentioned, but which in some peculiar cases is highly valuable; I mean cold ablution to the surface, and in some instances, even the cold douche. This last remedy is applicable only in cases of extremely high excitement, with intense burning heat of the surface. No fear need here be entertained of repelling the eruption, for the glow which succeeds the first impression of the douche brings the circulation rapidly to the surface, and with a tendency to secretion from the skin, which affords very great relief to the sufferer. In cases where the intense and violent excitement is renewed rapidly after the first application, it may be repeated until the severe heat of the surface is moderated. I have seen cases where

the prompt use of these means has disarmed at one blow, all the dangerous features of the disease. The judgment of the practitioner would necessarily forbid the use of the douche, in any but these particular cases. The advantages of ablution are more extended. In almost all the forms of the disease, where there is decided fever, and no tendency to depression, the use of this remedy will allay the restlessness, and heat of surface which are so annoying to the patient. In the various epidemic visitations of this disease in our city, I have seen it assume all its varied forms, and in different years require different management adapted to its peculiar type of that season.

If this brief sketch which I have given as the sight of my experience, should be of the slighest service to the society, it will be more than a reward for the many painful moments I have passed at the bedside of the victims of scarlatina.

[Communicated by M. S. BAER, M.D., of Baltimore.]

DEAR DOCTOR:

As you have requested my views of the nature and treatment of scarlet fever, it will give me pleasure to comply with your wishes, and communicate, as far as I can in this brief paper, my reasons for changing my practice and pursuing what has been *kindly* called the *ultra* stimulant plan.

I can most solemnly aver that for the last ten years I have not lost more than one (if so many) out of a hundred cases, when I have seen the case in its onset, and the patient has not been reduced by the depleting system.

In 1829, while the scarlet fever was raging with fatal violence in this city, my daughter, about four years old, was attacked with the disease. My treatment, at first, was gently antiphlogistic. I discovered the system suddenly to sink, and her life was only saved by the administration of stimulants and cordials. I then felt convinced that there must be something very wrong, both in the pathology and treatment of this disease. After reflection, I concluded that the disease was purely nervous, the poisonous influ-

ence, whatever it might be, making its attack on the nervous centres, and the train of succeeding symptoms, being only symptomatic of the injury done to these points. After such conclusions, my course appeared to be very plain, viz: to sustain the recuperative powers of the system.

The first case that occurred, was that of my own son, about two years of age. To be satisfied that the first passages were in order, I gave a dose of magnesia. After one evacuation, I gave an anodyne; I ordered one part of brandy to be mixed with two parts of water, and two teaspoonsful to be given every half hour; the general surface to be freely bathed with equal parts of whiskey and water, when dry, and when the child should be restless. With light nourishing diet after the first day, together with these means, the child soon recovered. I was satisfied with the correctness of my views, and in the year 1833, I felt that they were corroborated by additional experience.

W. M. E., aged about thirty years, had been ill with the scarlet fever about a week, and treated by the depleting plan. When I first saw him, the pulse was one hundred and forty, there was low muttering delirium, extensive ulceration of the throat, the general surface of a deep mahogany color, the tongue dry, and great restlessness. I ordered a mixture of equal parts of brandy and water, one tablespoonful to be given every twenty minutes. ℞. Nitrat. argent ℈, Aquæ Distillat ℥; the solution to be used freely with a mop to the fauces; the surface to be frequently washed with whiskey and water. There was no improvement in the first twelve hours, but the treatment was continued. On the second day he was evidently better, so much so, as to allow an increased interval between the stimulant doses. The ablutions were continued. On the third day he still improved. Treatment continued, and farinaceous nourishment, flavored with brandy.

He continued to improve, and on the fifth day indulged in a small quantity of animal food. From this time he recovered rapidly, and without any of the sequelæ usual in such severe cases. I continued from year to year, the successful use of these means.

In the year 1838, on the nineteenth of June, I was called to see M. O., aged eight years, in the very beginning of the disease. The pulse was almost imperceptible, and the whole skin of a deep brown hue,—tumefaction of the throat,—delirium. I prescribed

strong brandy and water every fifteen minutes, a liniment to be applied to the throat, made of equal parts of liquid ammonia, laudanum, and olive oil, the usual solution of caustic for the fauces, and ablution of the surface with whiskey and water. On the twentieth her symptoms were stationary, except that ulceration had extended over the fauces, tongue and lining membrane of the mouth,—no additional treatment. On the twenty-first there was slight improvement,—some lucid intervals,—ordered a solution of equal parts of solution of chloride of soda and water, to be used as a gargle, alternately with the caustic. On the twenty-second she was still improving,—remedies continued. She grew better every day, and from the twenty-fifth, by the use of light nourishing diet, she gradually recovered.

In the year 1837, I saw A. E. S., age eighteen months, attacked with the usual symptoms of the malignant form of the disease, or rather, inflammatory form. Pulse one hundred and thirty, rather full, surface of a bright red, throat greatly tumefied, quick respiration, great difficulty in swallowing, abdomen tympanitic, with severe pain on the least pressure, pupil dilated, and restless tossing of the head and body, and general expression of anxiety. I ordered a dose of magnesia, to be followed by an anodyne,—the diligent use of all the remedies mentioned before, together with the application of the volatile liniment to the stomach, and woollen cloths, wrung in warm brandy, to the abdomen. For the first twenty-four hours there was no evident improvement. After that time the disease began to subside; about the fourth or fifth day, the child was on the floor, amusing herself with toys, and continued to improve rapidly without any untoward symptoms.

In the milder forms of the disease the same treatment is followed, suiting the strength of the cordials to the violence of the disease.

The two above cases, W. M. E. and M. O., were of the most malignant form of the disease, and although presenting an aggravated aspect, yet they soon yielded to the treatment. The case of A. E. S. presented more the inflammatory appearance, and yet the same course proved more early successful. The mild forms of the disease, it appears to me, require nothing more than a careful nurse to insure a cure.

I have been greatly pleased to see the delightful effects of the

whiskey ablution. Immediately after it is used, (it matters not how restless the patient may be,) he falls into a sweet sleep, and the same result will follow each washing.

As regards evacuation from the bowels, I studiously watch them, and, if possible, never permit them to be moved until the cure is nearly completed.

I have thus hastily thrown together some scattering thoughts on scarlatina, and if you think them of any use to the Journal, you can present them to the committee.

Respectfully yours,

M. S. BAER.

DR. SAMUEL GEORGE BAKER.

Case of Fracture of the Thigh of an infant, successfully treated by the "immovable apparatus"—By Professor Horatio G. Jameson, Sen., *of Baltimore.*

I was called, in the month of April, 1839, to the case of Mrs. C., of this city. This lady had had several children; though small and delicate, she had always got through her labors very well. At this time, she was affected with severe griping pains, attended with some vitiated evacuation from the bowels, and considerable fever; also, some slight bearing down pain; but being, as she believed, two or three weeks short of her full term, she supposed her case to be colic. I prescribed for symptoms, and promised to return in the course of two or three hours. In less than three hours, I was sent for in haste, and upon making examination, I found the labor advancing rapidly, and that the breech was presenting at the superior straight. I had usually seen so little difficulty in breech presentations, that I suffered the labor to progress. The membranes giving way, I examined again, and found that the fœtus had descended somewhat, and I concluded that I might leave the case to nature, and suffered the period to pass when it would have been easy to convert this into a footling case. Some hours, perhaps three or four, of severe and frequent pains were suffered to progress. Upon making another examination, I found that the labor had in no degree advanced. In this state of things I attempted to pass up the hand to bring down a foot, but the back of the child being to the sacrum of the mother, and the heels upon the pubic bone, I could not, by any reasonable force, succeed in pushing up the fœtus, so as to secure a foot. In this attempt I was prevented from accomplishing my purpose, by the incessant and violent action of the uterus.

After waiting a few pains, and seeing the energies of my patient were rapidly declining, and believing that in the present posture of affairs nothing remained to be done, but to effect the delivery with the existing presentation, I decided upon availing myself of the aid of the blunt hook, made to act upon the thigh in the groin. I went on to apply a gradually increased force, when, unexpectedly, the former gave way near the trochanter; however unpleasant such an

occurrence, as regards the child, it brought speedy relief to the mother, for now the fœtus had been started from its confined position, and delivery was quickly effected.

I report this case from memory, and cannot do it with that perspicuity which would have been attainable at the time of occurrence. However, as it is not my design to offer any thing in respect to the midwifery of this case, except so far as I deem requisite for accounting for the occurrence of a fracture of the thigh bone in the birth, and of the necessity for the use of such means as were most likely to repair the injury, I shall submit this part of the subject, believing that those who best know me will believe the case was beset by a difficulty, while, as regards the censorious, I care not how much they may find fault with a case which, not being submitted to their judgment clinically, cannot be justly estimated by them.

I did not hesitate to disclose to the patient, and her female friends, what had happened. Not questioning my skill, (I suppose,) neither surprise nor dissatisfaction was manifested; and, it only remained for me to provide means for the restoration of the injured limb. Looking at the thigh, I more than ever noticed the great tapering of the infantile thigh, and plainly saw that there would be great difficulty in applying any apparatus with which I was acquainted, that would not speedily slip down upon the leg, and thus become loose. After a few minutes reflection, I decided upon the following plan:—Two rollers were provided of fine muslin, not cambric, which is usually stiff and less yielding than fine thin common white muslin. These were each about three yards in length, and a little less than an inch wide. They were immersed, and squeezed in a mucilage of gum arabic—thus imbued with the wet gum, they were rolled up in the usual way. To these were added four strips of common thin pasteboard.

Thus provided, I proceeded to apply a roller, beginning at the knee, and carrying it up to the groin in the usual way, observing to carry the turns of the roller, after I had reached the groin, obliquely towards the hip joint. The wet and adhesive condition of the roller kept it well in place, notwithstanding the obliquity of the upper turns of the roller. This accomplished, I applied a splint on either side, one before, and another behind—taking care that the outer lateral one was long enough to reach up over the

hip joint, and that the posterior one should not pass so far into the ham as to prevent the flexing of the leg upon the thigh. The first roller was now expended in passing down and up, so as to form a case around the splints. The second roller was applied in like manner. A female assistant kept the leg extended during the application of the apparatus; and, the nurse was now desired to move the child as little as possible till the dressing were dry. It was now late in the day, and the infant was but little disturbed during the night. On calling next morning I was much pleased to learn, that the child had given no manifestation of pain, but on the contrary, it had rested quite comfortably. The dressings were dried, and most satisfactorily in place, and forming a solid case around the limb. As already remarked, the limb was very tapering, but the case around it was glued fast to the skin, and the leg being moderately flexed on the thigh, also tended to prevent the bandage from slipping down.

The infant was now treated in the usual way, only I desired that it be left, as much as circumstances would allow, in the cradle, which was its appointed bed. This casing remained well in place; yet I took the precaution of calling every day. About ten or twelve days after the application, I found, on looking at the limb, that the case had slipped down upon the leg, but the limb was in no degree displaced, nor did I observe any motion in the fragments. The same care was taken to apply similar fixtures as at first. This remained well in place till I deemed its presence no longer necessary. Upon removing the bandage, nearly a month after the accident, I found so perfect a union, that no difference could be discovered between the two thighs. Three or four months after the injury, (4th of August,) the limb is still straight and perfect. And, I can truly assert, that at no time did this infant manifest any signs of pain, indisposition, or restlessness, other than what is inseparable from infantile life. Indeed, it was unusually quiet, and, in the language of the nursery, "a very good child."

Such an accident never came to my notice before the present one, but, I am nevertheless convinced, that the happy termination, as well as the uncommon exemption from suffering, notwithstanding the fracture, in this case, was owing to the method of treatment. It may still be worthy of notice, that there was not even excoriation of the groin. A reasonable share of care to this point

will prevent the evil which might be apprehended from the contact of urine, &c. Nor was there any abrasion or fretting of the skin. When the apparatus was removed the affected thigh was a little less than the other, but this condition of the limb soon disappeared, and the affected member could no longer be distinguished from the other.

REMARKS.

I had long been in the habit of treating fractures, and, use had made different forms of simple apparatus familiar; and with careful patients, I had apparently little to desire. In oblique fractures of the thigh and leg, I succeeded in restoring fractured limbs to their integrity, and, of course, without deformity, by the use of Desault's apparatus for the former, and that of Dr. Dorsey for the latter; and, for those that were transverse, the most simple splints, applied so as to prevent lateral displacement, answered my purpose, having regard only to placing the limb in the most favorable position, in respect to the extension or flexure of it, as the nature of the injury, or mechanism of the member might require.

Assured thus experimentally, that I had means for effecting my purpose, in the treatment of fractures, like many others, I did not pay that attention to the method which has been gradually raised up jointly, by some highly respectable German and French surgeons; I mean the method by the "immovable apparatus." But the infantile case having occurred, I plainly saw there was a void before me, or in other words, that no plan which I had ever employed, in the treatment of fractures, was at all suited to the case.

Since the occurrence of the above case, my attention has been forcibly called to the accounts from Europe of the new method, by my friend, Professor Annan, who informs me that, he has employed this treatment with complete success. My subsequent reflections, supported by my success in the infantile case, have led me to believe that the new method ought to be almost universally employed in fractures. I believe this to be one of the most important subjects, because it is now introducing a very desirable improvement, in a branch of surgery where it is much wanted, owing to the frequent occurrence of subjects for its employment, and the diminution of suffering, and of the loss of time, &c. derivable

from it. Such being my opinion, I feel impelled to offer a few observations upon the subject.

So far as I am informed, M. Seutin has introduced the most complete apparatus for the cure of fractures by the immovable method of treatment. I shall offer a few remarks on his apparatus, &c. This gentleman directs a bandage, (we presume a roller,) to be applied over compresses which have been adjusted to the limb. I would most pointedly object to the use of a roller in fracture of the leg, in all cases of comminution of the bones, where both bones are broken, the fracture near the ankle, or the tibia broken in several places. Because a roller cannot be applied in such circumstances without considerable pain, from the necessity of changing the hands which support the limb while the roller is to pass the point where it is held; and the risk of incomplete coaptation, since the limb will necessarily be subjected to a good deal of motion among the fragments. All this is easily obviated by using the bandage of Scultetus, as revived by Mr. Hey, of Leeds; nor will the supporting case be in any degree weakened by the use of the strips. On the contrary, I believe it would be greatly strengthened by the oblique crossings of the strips of muslin, as they must be applied to fit the tapering, or form of the leg, and owing to which, they afford a much more even surface and pressure on the limb, than a continuous roller, which cannot be applied smoothly, without turning the roller a half twist every second or third round.

I doubt much, whether we gain any thing by the use of compresses, in the construction of the immovable apparatus. It will scarcely be insisted on, that a single application of Goulard's lotion is of much consequence; on this account, we think the compresses are not important. And, since the limb is to be covered with so smooth, or rather, even surface, as that of pasteboard, of what utility shall we suppose the compresses to be? It is true, that in the leg, where this apparatus is most useful, so extensive is the origin of some of the muscles from the fibula, and upper part of the tibia, that the fragments are not likely to be displaced by any portion of the compresses getting in between the bones, but our object professedly is to apply a firm, smooth, even case around the limb; wherefore then render its internal surface uneven, by the use of compresses which are not required as splints,

because we are to apply pasteboard? Will not wet compresses require more space, between the internal surface of the case and the skin while it is wet; and, may they not, therefore, as the whole becomes dry, leave a space which may be avoided, by applying the splints to the first or second layer of the bandage? And is it not desirable, that we obtain a dry state of the apparatus as soon as possible, provided, only, that we take care that our casing is strong enough. Now, I feel well assured, that if we use thin binders' boards, having a smooth surface, and apply three or four layers of muslin, we shall have a case sufficiently strong; and, which will dry much sooner than when the compresses are used. However, as I have but little experience in this plan of treatment, I shall forbear to dwell longer upon matters of opinion. But, I am resolved to subject the new method to the necessary investigation and experiment.

In my case, as already detailed, I obtained decided advantage from applying the gummed bandage directly to the skin, and I should have the fullest confidence in the employment of the immovable apparatus even in oblique fracture of the thigh, as well as that of the leg; provided, in both cases, however, that we attach the bandage to the skin, and aid it in supporting the fragments in place by applying the usual extending apparatus, during the drying of the dressings; after which, the patient could be relieved from this troublesome addition. I would not, however, allow the patient to sit up, in cases of fracture of the thigh, till the bone was firmly united. And it would be well, at the end of a fortnight, to remove the apparatus, by softening the case, by enveloping the whole apparatus in cloths thoroughly wetted, till the dressings are softened, and then make a careful application of the bandage and splints, as at first. Moreover, I should advise this to be done in cases of fracture of the leg, in all instances where the shrinking of the limb left the case considerably loosened, as must always be more or less the case where the bandage is applied to a swollen leg. If the case becomes loosened, I would put my patient to bed, apply wet, take off the apparatus, and re-apply with much care. The patient will be abundantly compensated for three days' confinement, by the comfort and safety derived from a close fit of the sustaining agents, instead of having the limb quashing in pus, if

there should happen to be any, or continually rubbing about in the hard tube that surrounds it.

It has generally happened, in introducing inventions into surgical practice, for the inventors or advocates of them to expect too much from such innovations; and this is clearly the case with some of the gentlemen concerned in the invention and use of the immovable apparatus. We are advised by some to apply the apparatus without regard almost to the circumstances of the case. It is true we have it in our power to remove the dressings by soaking them, but this has not been suggested; and certain it is, that where there is comminution of one or more bones, where there is very violent contusion or crushing of a limb; or where there may be no clear indications of these or other contra-indications, and great suffering takes place after the dressing has been applied, we should, in the first cases, delay the application, and in the other remove it. I have no doubt, in my case, the renewal of the apparatus, on the tenth or twelfth day, made the cure more speedy and complete, and that it will be found often advisable to renew the dressings once, and cases may possibly occur where it may be proper to renew twice. Intending to pursue the further investigation of this subject, I shall here close my observations for the present, hoping that the profession will go on to test more fully the merits or utility of the new method, free from prejudices; and especially bearing in mind, that no apparatus is to be trusted without frequent examination. It is always sufficient *that we find* all well, after paying due attention; let us not then, expect that after we have dressed our patient, or even seen the apparatus dry and well fitted, that we may now trust to "*expectation.*" It is a trite, but just saying, that "sure bind, sure find,"—this truth has its measure, and we shall only have done our duty when we see with our own eyes, that matters progress aright.

The suggestion just made has awakened a few thoughts which I think proper to announce, in respect to our fees under the new practice. I well recollect that when I was young, a custom prevailed among the profession, my father being a member, of charging for what was called "setting the bone." The common charge was £5, or, $13 33\frac{1}{3}$. And it seemed that the views of the profession accorded, in some degree, with the popular feeling, at this time as well as then, that to reduce a fracture was similar to the

reduction of a luxation. If the bone was properly set, all was supposed to be well, and if there was a failure in the complete restoration, the evil was ascribed to the bones being badly set. Now, while they overlooked the important fact, that the difficulty and skill in these cases depends essentially upon our so adjusting our apparatus as to keep the fragments immovably coaptated, this view of the case went to secure a fee, in some degree commensurate with the importance of the service rendered. It surely is not right, that because we became wiser, and afforded greater advantages to our patients, that we should receive less pay. Far be it from me to advocate any thing mercenary in our profession, but while I would ever strive to support the dignity of our profession, so would I wish to support all fair means for just and equitable remuneration. The law has made men liable, and justly, for maltreatment, but custom should secure to us fair compensation for what is well done. A gentleman of high distinction in our profession said to me, that, in regard to charges, "the whole world is against us, and we must take care of ourselves." Suppose I am called to a gentleman who is travelling, and he meets with a fracture, which, according to former modes of treatment, would have detained him five or six weeks; but, by applying the *immovable apparatus*, I enable him, in five or six days, to proceed on his journey; am I entitled to more or to less compensation than if he had been detained?

I deem it decorous merely to drop this hint to the consideration of the profession, and wish only to say further, that where the new apparatus is well applied, we may truly say, we have "*set the bone,*" and now, as in cases of luxation being reduced, we may justly, nay, we owe it to ourselves to charge for "setting the bone;" and I would suggest that a fee, regulated by the pecuniary circumstances of the patient, and the nature of the case, should be demanded,—say from ten to fifty dollars.

Practical REMARKS *on Mucous Papules*—*By* WILLIAM POWER, M.D. *of Baltimore.*

THIS form of syphilitic sore or production, is one that presents itself with peculiar interest to the practitioner, not only in a therapeutical point of view, but also from the remarkable place it holds in the scale of symptoms of this Protean disease. It has received in France the names of mucous pustule—*pustule plate, pustule humide, tubercule muqueux, papule muqueuse,* and is by most late French writers well described, occupying a prominent place in their natural history of the disease. It has not been so clearly pointed out by the English syphilographes,—appears to be badly understood by them, being classed under the general head of warts or vegetations (condylomata,)—ranked as a mere ordinary consecutive result of a virulent infection,—no distinction drawn by many between it and venereal warts properly so called, and by some not even separated from the vegetations which succeed to gonorrhœa, though they are essentially different from it both in march and treatment, and other more important characters, which, in the sequel of this paper, will be pointed out. Evans, in his excellent memoir on ulceration of the genital organs, evidently confounds this symptom with that form of chancre which he terms *ulcus elevatum.* Carmichael would seem to comprehend it in his description of the *ulcus superficialis.* Later writers have fallen into the same error, which indeed is not surprising, as in many cases it is exceedingly difficult to draw a diagnostic line between a chancre undergoing a vicious process of reparation with exuberant granulations, and the mucous papule; chancres changing in certain cases into mucous papules, bring a conversion of primary into secondary symptoms *in loco.* It is the fact of this change being the first evidence of a general infection of the economy, that gives to the mucous papule its importance; its occupying, as it were, a medium place between primary and secondary symptoms—sometimes to be regarded as the one, sometimes as the other, though more generally the latter, particularly when it shews itself on other parts of the body than the genital organs.

It is its occurrence on other parts of the body, identically the same in physical characters and progress, though for the most part different in its origin and mode of appearance, requiring the same therapeutical indications as when seated on the genitals, that has escaped the notice of most of our own writers on syphilis. To endeavor to elucidate this point, and to make known a treatment which we have opposed to this symptom with great success, is the object of this paper. But, before we speak further of the peculiarities of this symptom, we will describe what we mean by the mucous papule.

The mucous papule, (for by this name we shall designate this lesion,) is that form of sore in which the base is constantly higher than the edges, generally of a pale rose color, though sometimes assuming the deepest red tinge; its surface clean and smooth, or at most slightly covered with a whitish lymphy deposition, with some crusts of matter along its edges; secreting a thin, irritating, whitish, and strongly odorous discharge. This odor is so peculiar, that to one who has been accustomed to see this form of disease frequently, it alone is sufficient to indicate its existence. The surface is from an eighth to a sixteenth of an inch higher than the surrounding skin, and the sore is from the sixth of an inch to an inch or more in diameter, pretty regularly rounded. Their ordinary seat is the inner face of the labia majora, at the junction of the mucous membrane with the skin—on the glans penis, the inner face of the prepuce, in the neighborhood of the anus—on the nipple of nurses suckling infected children—the angles of the mouth, or the buccal mucous membrane of these latter. They sometimes appear on the skin of the penis, upon the external surface of the labia majora—in the fold of the groin, the upper and inner part of the thigh, and on the scrotum. Usually they are few in number, though in some cases they are grouped together in immense quantity, without losing their original and distinctive characteristics, while they disfigure very much the parts upon which they may be seated, particularly the labia, and increase their size; and from the irritation to which they give rise, cause a secretion of lymph to take place in the interstitial cellular tissue of these organs, creating a genuine hypertrophy. Persons who are cleanly in their habits never present them in this exaggerated quantity. It is among the lowest prostitutes, and negroes particularly, who are

notoriously deficient in habits of personal cleanliness, that they are thus propagated from point to point, until sometimes the whole of the external parts of generation, the thighs, and perineum are converted into one secreting surface, pouring out a product in the highest degree offensive. It is for this reason, doubtless, (their inattention to cleanliness,) that I have met with them so much more frequently in negroes than whites—in women more than men; and among whites, those with thin delicate skins, red hair, and whose perspiration is habitually odorous, have appeared to me more pre-disposed to them than others. They are much more common in hospital than private practice, for it is upon the filthy and abandoned that they fix by preference.

In some cases, like the chancre, these papules appear from six to eight days after an impure connexion; sometimes not until the lapse of fifteen or twenty, presenting their papular character from the commencement, and appearing to be a morbid growth of mucous membrane or of the skin of the affected part, springing immediately from a venereal infection. In other cases, and much more frequently, they owe their existence to a different process. It is when they are preceded by a chancre, which, after passing through its ulcerative stage, without having been submitted to a proper treatment, commences a vicious process of reparation, the granulations become fungous and exuberant, sprout up from the base, the diameter of the sore increases, the surface assumes a flat smooth aspect, and no longer secreting pus, pours out the fetid discharge already spoken of, and becomes a true humid or mucous papule. This is the singular character of this sore, that it undergoes a complete transformation *in situ;* is *a symptom of transition from primary to secondary symptoms:* indicates the presence of the venereal infection in the general economy, and yet loses that which is the specific character of chancre—its power of being propagated by innoculation.

Such is the history of the mucous pustule, looked upon as a primary symptom: but there is yet another mode by which it may be generated, and in which it frequently presents itself, having *all* the characters of those we have already described; being identically the same disease, yet formed in a different manner; which is by the gradual change of the lenticular syphilitic eruption, (that most common of all secondary appearances,) on those parts of the

skin which are habitually moistened by the natural secretions, which are soft, and approximate somewhat more than the general integument, to the condition of a mucous membrane, as in the fold of the groin, the rugæ of the scrotum, the axilla, the mamma, &c. &c. Here, these lenticular rosy or copper colored spots, instead of being mere elevations, slightly raised above the skin as they are elsewhere, hard, covered with a dry crust or furfuraceous deposit, acquire on the contrary a greater development, extend in size, become elevated one or two lines above the surrounding skin—their surface becomes moist, and, taking on the character of a secreting membrane, pours out the same thin, fetid secretion that we have mentioned as characterising it in those cases where it arose primarily. In this case there is no question as to its being truly a secondary symptom, proceeding from a general infection, and in no manner communicated by direct contact.

Thus then, we have traced the various origin and growth of the humid papule, which, as we have seen, may be either a primary symptom, engendered immediately from an impure connexion, and constituting by itself, the sole symptom of the disease—or, it may arise from a true chancre, degenerating from improper treatment in a lymphatic constitution, and from want of care, into this form of symptom—betraying to the practitioner that the economy is already poisoned by the infection; or, in the third place, it may show itself as a degenerated form of the common secondary eruption, taking place on those parts of the body where the peculiar humid character of the skin approximates it to the nature and functions of a mucous membrane. In all three cases, presenting the same physical characters, and possessing the property of being propagated in its own kind, or in the form of chancre, by *vital contact*, as in the intercourse of the sexes, the suckling of children at the nipple, &c., and yet the secretion, innoculated by the lancet, produces no appreciable result—a fact which separates it widely from both true primary and secondary symptoms; the first, that is true chancre, in every case where the innoculation is performed under proper circumstances, viz. (where the pus is taken from a chancre still in its ulcerative stage,) producing a chancrous pustule, presenting all the characters of a syphilitic sore, and this sore, being in its turn, susceptible of indefinite propagation by the

same process, as satisfactorily proved by the experiments of Bell, Hunter, Cullerier, Tongue, Evans, Percy, Ricord,* &c. The secondary symptoms, as proved by the same experimenters, not possessing this character, but only transmissible hereditarily from parent to child, neither propagated by innoculation or by contact—while the mucous papule holds, as we have before said, a sort of middle ground, not transmissible by innoculation, yet capable of being propagated by prolonged vital contact of one part with another, as the genital organs, the lips, nipple, &c., giving rise sometimes to true chancre, but most frequently to a papule *sui generis*.

M. Ricord in his late work, seems to think that in every instance where this symptom is thus propagated, there is the remains of a true chancre, secreting innoculable pus—that in women and children, where we most frequently meet it, it is only a degenerated chancre, which the patient, from the nature of the parts, has not taken notice of; and therefore, that it ought always to be ranged as a secondary symptom, possessing all the properties common to the latter, and transmissible only hereditarily. This manner of viewing the question, however, our own observations will not permit us to adopt. Where it is transmitted from the nipple to the angle of the mouth or the buccal mucous membrane, it is evidently a transmission in kind, without any previous development of chancre. And in cases where, a week after a suspi-

* NOTE.—This last named physician, at the *Hôpital du Midi*, charged with a service of one hundred and fifty beds, has for several years past devoted himself to innoculating experimentally, in all the different phases of the venereal disease. His experiments, in all amount to several thousands, and he has established by direct proof, and triumphantly, the innoculability of chancre alone, of all the venereal symptoms. In the admirable work which he has lately published, and in which he has laid before the profession the result of these, his laborious investigations, he has thrown more light, precision, and system, into the study of syphilitic diseases, than any writer since the days of Hunter. It was in his wards, during nine months, that I made most of the observations upon which this paper is founded, so far as the natural history or pathology of the disease is concerned. M. Ricord, studying anew the disease for himself, without any reference to what his predecessors had done, not contenting himself with adopting received notions, and following a blind routine, but proceeding upon the only true plan of study, that of diligent observation and experiment, has cleared up many points hitherto obscure in the pathology and treatment of syphilitic affections; and Baltimore, his native city, has reason to be proud of this her son, who, by his talents and industry, has obtained the brilliant position he now holds among the medical celebrities of the school of Paris.

cious connexion, this symptom has presented itself to us well characterised on the glans, there is no possibility of admitting that a chancre could have run through its ulcerative stage so soon. Moreover, in cases where from want of proper cleanliness, they appear on the thighs, labia, or scrotum, the physician may see them from the contact of irritating matter growing up under his eyes, without any trace of previous characteristic ulceration.

This symptom, if not properly treated, is almost unlimited in its duration, as we have seen, propagating itself from point to point with a remarkable tendency to increase. Subjected to the ordinary venereal treatments, it is very obstinate, lasting from thirty to ninety days, and even longer. The mouth may be touched again and again, without materially affecting its march—chancres which may exist in its immediate neighborhood becoming completely cicatrized, while it remains stationary or even increases. The tissues on which it is placed become the seat of chronic irritation—thence effusion of lymph with hypertrophy of structure, and induration. In fact, it shews no tendency to improve under the simple use of general means, and all writers who have spoken of it, recommend the combination of some local treatment, generally of an escharotic character. In this view, powdering with dry calomel; dressings of a cerate composed of calomel and opium; the black and yellow washes; sulphate of copper; lapis calaminaris; alum; nitric acid and the nitrate of silver have all been recommended, and each found warm advocates. These substances are all useful, but are slow in their operation, and not unfrequently fail of producing the desired end. Even the knife or scissors are subject to the same reproach, and the practitioner, after subjecting his patient to the pain caused by excision, will often be mortified to find, after a few days, the whole excised surface sprouting up and re-assuming its original appearance. It was the annoying experience of the frequent failure of these means, while I had charge of the female department of the Baltimore Alms House, where almost every negro affected at all with syphilis presents this form of morbid production, and not unfrequently the whites, that made it desirable to find some means more certain in its operation, more efficacious and more speedy, which might shorten the actual duration of the disease, and relieve us from the dread of finding it re-produced a week or two after it was supposed to be

effectually controlled. We experimented upon the comparative virtues of various local applications, and the result has been, that an immense superiority is to be attributed to the *nitrate acide de mercure*, of the French formularies. It proving in every case, where fairly tried, almost a specific; acting rapidly and efficiently, and giving us in no instance a relapse.

The *nitr-ac-de-mercure* is a caustic, which has been for a long time used in sores of a bad character by the French surgeons, particularly those of a cancerous nature. M. Recamier applied it extensively in the treatment of ulcerations of the *cervix uteri*, and by his eulogiums upon its efficacy in his hands, brought it largely into use among his brother practitioners. It has been but little employed either in England or in this country—does not even find a place in our Pharmacopeias, notwithstanding its deserved celebrity among continental physicians. From its happy effects, as observed not only in the disease we have under consideration, but in numerous other cases, it deserves a high place among our therapeutic agents. It is a liquid caustic, of great activity, holding a sort of medium rank between the nitrate of silver and caustic potassa: more active and powerful than the former, extending more deeply in its influence: less painful, less potent, and infinitely more manageable than the latter. One peculiar effect I have often noticed to result from its application, is the activity of local circulation to which it appears to give rise—more or less bleeding from the cauterised surface almost always taking place; this characteristic would seem to indicate it as a valuable mean in sores of a decidedly sluggish chronic character, and I have more than once experienced benefit from its application in such cases. Its composition is

℞ Deuto-nitr Hydrarg, ʒ i.
Acid Nitric, ℥ i.

to be kept in a bottle with a ground glass stopper, and to be applied with a mop of soft linen, or a camel's hair pencil, to the affected parts. From frequent essays made with this and other articles, I am convinced that there is a saving of one-half or more in the time required for the cure of mucous papules. Instead of lasting from thirty to ninety days, as they do under the ordinary treatments, from ten to fifteen is all that is required when this substance is judiciously made use of in combination with other

means. To show its value I will relate a few cases selected from among the last year's practice at the Alms House.

CASE I.—Eliza Brown, colored girl, æt. 22, dissolute in habits, and filthy in person, but enjoying excellent health, contracted syphilis about four months previous to her admission into the house. On examination, a chancre was found seated upon the left nympha—circular, the fourth of an inch in diameter, excavated, with elevated indurated edges, and two smaller ones presenting the same characters at the *fourchette;* all still at the period of ulceration. She was placed upon the usual treatment—pills of Proto-Iod. Hydrarg—a grain night and morning, with a pint of *decoct-lignor,* daily. The chancres were touched occasionally with the *nitr-argent.* and dressed with lint moistened with black wash: on the 18th day these sores were perfectly healed. Both labia, at the time of her admission, were covered with a crop of mucous papules at the junction of the skin and mucous membrane of the vagina—two large ones in the left groin, nearly an inch each in diameter, and one or two smaller ones on the thighs. These were also well rubbed with the *nitr-argent.* twice a week for six weeks, without any improvement; for they seemed from day to day to enlarge. As their bases were very much elevated and indurated to a certain extent, I used the bistoury—shaved them off on a level with the skin, and then cauterised the bleeding surfaces carefully, with the *nitr-argent.* To my surprise and disappointment, in a week they had attained again nearly their former size, and poured out as profusely as ever, the thin fetid secretion. They were subjected twice to the same mode of treatment, without benefit. She then used mercurial ointment in friction for two weeks—the papules increased every day in extent. Finding them more developed than they had yet been, I ordered them to be touched with the *nitr-ac-de-mercure.* The application gave rise to much pain, but when examined a week afterwards, they were more than one-half reduced in size. They were twice touched, at a week's interval, when she was reported without a trace of disease being visible. In this case the mouth was twice touched during the treatment, but without producing any beneficial effect upon the papules. The proto-ioduret was withdrawn as soon as ptyalism manifested itself, and resumed immediately upon its disappearance. The *decoct-lignor* was constantly perse-

vered in. This case is a fair instance of the obstinate chronicity of this symptom, showing how little it is under the influence of general remedies, and even active local applications. For two months and a half a systematic and rational treatment was constantly kept up, but completely failed. The chancres yielded readily, but the papules increased. It was not until the *nitr-ac-de-mercure* was used, that these showed any disposition to mend. In three weeks it effected a perfect cure. This patient remained for some months in the house, and we had every opportunity of satisfying ourselves that there was no relapse.

Case II.—Mary Courcy, mulatto, æt. 19, contracted chancres some three months before she entered the house, for which she had already undergone a mercurial treatment, in town. When examined, both labia, from the clitoris to the fourchette, were covered with large mucous papules, exuding a dreadfully offensive discharge. The labia were increased nearly one-half in size—no chancres now visible—a slight muco-purulent discharge from the vagina. She was placed on pills of the Proto-Iod. and *decoct-lignor*, immediately, as her general health and digestion were good. The *nitr-ac-de-mercure* was applied to the papules, and she was reported, the labia entirely reduced in size, the papules cicatrized over, free from every trace of disease, eighteen days from the day of her admission.

Case III.—Hetty Harman, negro, æt. 22, stout and vigorous frame, intemperate habits, contracted syphilis seven weeks before her entry into the Alms House—had undergone a partial and irregular treatment under the dictation of an apothecary in the city. The disease never was cured, and she continued to lead a dissolute life up to the moment of her admission, 14th March. On examination, she presented both labia studded with mucous papules, projecting at least two lines above the skin's surface, secreting abundantly an acrid, offensive fluid—several smaller ones in the fold between the labia majora and minora, and others, about half a dozen, large as shilling pieces, in the groins. Two chancres near the fourchette, one granulating its edges on a level with its base, the other excavated, its base covered with a yellowish deposit, still at the period of ulceration. After an emeto-cathartic had heen administered to relieve the saburral condition of her prima-viæ, she was placed on the usual pills and decoction.

The chancres were touched with *nitr-argent*, the papules with the *nitr-ac-de-merc.* Examined next day, they were found covered with a brownish dry crust, the secretion entirely arrested. Touched a second time, a week from this date, and reported perfectly cured, both of chancres and papules, on the 27th March, fourteen days from her admission. The mouth was not touched in this case, and as she remained six weeks in the house, without any thing like a relapse, we are warranted in concluding her perfectly cured.

CASE IV.—Jacob ——, a colored man, æt. 42, laborer, intemperate in his habits, living in filth and poverty, contracted two chancres on the prepuce, two months and a half before he applied for admission into the house. He had been irregularly treated by a quack in the city. At his entrance, he presented one large papule on the left thigh, two smaller ones on the right, at its upper and inner part, each an inch in diameter—six or seven smaller ones on different parts of the scrotum, one on the outer face of the prepuce—all discharging profusely. He was immediately placed on pills of the proto-ioduret, the papules touched every second day with the *nitr-ac-de-merc.* The discharge was immediately arrested, the sores rapidly improved, and on the tenth day from his admission he was reported perfectly cured.

These cases may serve to shew the rapidity with which this symptom improves under the use of this caustic. In every case where I have applied it, the result has been the same; from ten to twenty days being the ultimate term of the disease, when it is judiciously combined with a general treatment. We have seen in Case I. that general treatment alone, influences but little this sore. There it was twice carried to the extent of incipient ptyalism without benefit: and what has been said in speaking of the place this peculiar form of morbid production should hold, in the scale of syphilitic symptoms, viz. that it is one of the earliest evidences we have of the existence of a general infection, would lead us to infer, on the other hand, that local treatment would be insufficient to eradicate the mischief. In fact, the more or less hypertrophy and induration, occupying the parts immediately about these sores, afford a rational and positive indication for the use of mercury in some form, as a resolvent; the same indication which exists for its use in chancre, the induration and hypertrophy resulting from the

effusion of lymph into the surrounding tissues, and which, until it is removed, presents an effectual barrier to a healthy process of cicatrization. The subjoined case may serve to illustrate these remarks.

CASE V.—Jane ——, colored woman, æt. 26, a prostitute, stout frame, general health good—does not know exactly when she contracted syphilis, thinks about two months before her admission; was salivated in the city. When examined, the labia on both sides, at the junction of the skin and mucous membrane of the vagina, presented from six to eight mucous papules, from half an inch to an inch in diameter, elevated from one to two lines above the level of the surrounding parts, secreting abundantly—the labia themselves enlarged, hard, and slightly painful. Anxious to see how far the local treatment we had applied so successfully in other cases, was, in itself, sufficient to effect a cure, these sores were touched five times with the *nitr-ac-de-merc.* After the second application, they were reduced to a level with the surrounding parts; still they manifested but little disposition to cicatrize, the labia remaining hypertrophied, and the surface of the papules secreting more or less. After the lapse of four weeks, finding things still in the same condition, the *ung-hyd. mit.* was ordered to be rubbed in on the labia, and 3 grs. *massa hydr.* given night and morning. The sores were still touched with the caustic: the labia diminished from day to day, the secretion was entirely arrested, the surface began to cicatrize, and on the eighth day after this change in the treatment, the patient was reported cured—forty days after her admission.

Cases might be multiplied, to prove the constant efficacy of the peculiar treatment of which we have been speaking, when judiciously combined with general means; but perhaps enough have been related to draw the attention of the profession to a more frequent use of the caustic we have employed with so much success. As to general treatment, we firmly believe mercury in some form to be necessary; that which we have employed in preference for the last two years at the Alms House, as well as in private, is the proto-ioduret, in the form of pills—a grain night and morning. This combination of mercury and iodine seems to be peculiarly happy in its results, when we administer it, to meet what we consider the only positive indication for the use of mercury in syphi-

litic affections—the existence of hypertrophy or induration. The first of these we always have in mucous papules, and very frequently the second. The known resolvent power of both these agents, would seem to point to their combination as desirable to ensure a completely successful result. This preparation—the proto-ioduret—holds a sort of middle place between the soluble and insoluble preparations—like the proto-chloride, it is less soluble than the deuto-chloride, cyanuret, &c.; less irritating to the intestinal canal, less likely to produce ptyalism, and is generally very well supported by patients. The prescription we usually employ is the following:

℞ Proto-iod-hydrarg, grs. xx.
Pulv. opii, grs. viii.
Extr. sarsapar. ʒ i.

Div. in pill.—No. xx—one night and morning.

This and a pint of the decoction of the woods daily, was the ordinary treatment for syphilitic affections in the wards under our care, and one, the success of which, was equally prompt and gratifying.

I have not spoken of the complications which may accompany mucous papules, as chancres, blenorrhagia, buboes, &c.—it would have extended this paper to an unreasonable length. My object has only been to point out some peculiarities with regard to this interesting symptom, to define more clearly its exact importance as an evidence of syphilitic infection, and the necessity there exists to eradicate it thoroughly whenever it exists—to point out a treatment which in my hands has always proved successful in accomplishing this end, and to lay the results of that treatment before the profession, in order that its comparative value may be tested by the results of their own experience.

OBSTETRIC MEMORANDA.

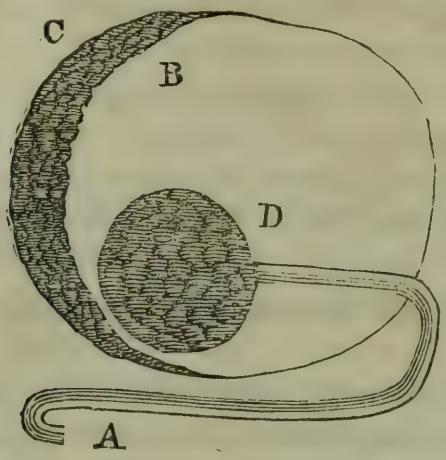
By George C. M. Roberts, *M.D. Baltimore, Maryland.*

On the 17th of February, 1839, Mrs. G*** was delivered of a healthy male child; larger and more healthy than any to which she had previously given birth. There was nothing peculiar or unusual in her case during labor, or throughout the entire stage of gestation. After delivery, on examination, the placenta was discovered to be detached, and hanging partly in the mouth of the uterus, but chiefly in the superior and middle portions of the vagina; presenting to the *touch*, in some portions, an unusual degree of firmness. In due time, with gentle assistance, it also was delivered, and on careful examination presented the following anomalous appearances.

The umbilical chord was found passing off from its body, not in the centre or near it, as is most frequently the case, but near the left margin. Commencing immediately at the root of the chord, partially involving it, and extending towards the centre and somewhat toward the left margin of the placenta there was found a large *circular patch*, measuring about *three inches* across its surface in each direction, and about *one inch* thicker than the body of the placenta itself. This *patch* was throughout in a very advanced state of ossification: presenting in every direction fully developed spiculæ of ossific matter.

The edge of the placenta, next adjoining this patch, and extending about one-third of the way around its whole circumference was in a similar state, but not as fully advanced. The uterine surface of the *patch* and this edge did not manifest the usual appearances of having been adherent to the uterus, but were covered with a thick, smooth and shining membranous coat.

The following cut will more fully elucidate the appearances manifested on its fœtal surface.



A. umbilical chord.—B. body of the placenta.—C. edge of the placenta in a progressing state of ossification.—D. circular patch of more fully developed ossific matter.

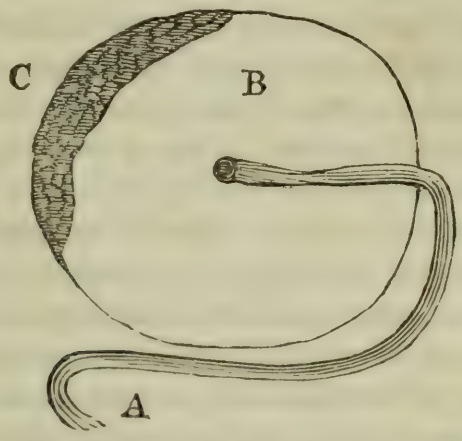
This cut is left unshaded, merely shewing the outlines of the placenta, in order that the situation of those portions in a state of ossification may be more clearly seen.

The mother and child did well, nothing special occurring during the whole time of confinement, with the exception of her recovery being much more rapid than usual on such occasions. I had previously delivered Mrs. G*** of all her children, three in number; in neither case was there any thing of a similar nature. Neither have I any reason to believe there is any unnatural tendency in her system to the deposit of ossific matter.

On the 8th of June, 1839, I was called to see Mrs. J****. In this case the delivery was unusually rapid. The child being born a short time before I reached her dwelling, I am unable to say from personal observation whether any thing peculiar occurred during labor. The attendants however assured me that there was nothing unusual, with the exception of her delivery being much more rapid.

The child was healthy and of ordinary size. The delivery of the placenta was not unusually protracted. On examination there

was manifested on its left and superior margin for about *one-fourth* of its circumference, a similar state of things to that in the case of Mrs. G***, just recorded. Ossification had progressed considerably as designated in the following cut.



A. umbilical cord.—B. body of the placenta.—C. edge in a state of well developed and progressing ossification.

In this case as in the other, the mother and child did well. It was her seventh confinement. I never attended her in any previous case. She assured me, however, that there never occurred any thing of the kind before. It might nevertheless have occurred previously without her knowledge, and been overlooked by the midwife who had always been her attendant.

Mrs. B***, is a lady of very slender constitution, and never gave birth to but one living child, at present eight or ten years of age. She had had many *abortions* since, and *one or more miscarriages.* In every instance, however, such were the previous circumstances, as to justify fully the opinion that each might have been prevented if due precaution had been observed on her part, after conception. In the early part of July, 1838, she conceived again. Every thing clearly indicating this state of things; the usual symptoms and appearances by which she had never been deceived, being all present. In this instance they continued to manifest themselves *more* and *more fully* for about two months. At this time they gradually subsided, and eventually entirely passed away, with one single exception, viz. there was no return of the menstrual flow. Things continued in this state until the fourth

month, dating from the time at which she believed she had conceived. I was called suddenly to see her on the 21st of November, and found her much enfeebled from excessive uterine hemorrhage. This attack, however, yielded kindly to the usual remedies, and in a short time she was able again to attend to her domestic affairs. In the latter part of December there was a slight recurrence of the hemorrhage, much less violent than the previous attack, and of short continuance. This also yielded to remedial means, and left her in a much less debilitated state.

Nothing remarkable occurred after this until the 19th of March, 1839, when there was a return of the discharge, which proved to be more excessive than in either of the former instances. This attack, though more severe and protracted, eventually yielded to treatment. The patient, however, continued much enfeebled.

As was to be expected, at this time, she became anxious in reference to her situation. She could not believe herself to be really pregnant, there being then, not the slightest development of any of the usual attendant circumstances, (the absence of the catamenia excepted,) by means of which in every previous case she had been most certainly directed in her opinion, as the issue in each fully proved. She was nevertheless as fully satisfied that she had conceived in the previous July, which had never been succeeded by the discharge of any thing that had the slightest resemblance to the embryon.

Until this period, on reflecting carefully on all the features of her case, I had been confident that there was the presence of something in the state of the uterus, which could not be accounted for on any other ground than that of *conception.* And yet I was unable satisfactorily to account for the total cessation of all the signs and symptoms of pregnancy, save the absence of the menses. A consultation was asked and assented to. A gentleman of known reputation as an experienced accoucher, was invited to see the case. After the most careful examination in every particular, and ascertaining there was no diseased state of the uterus itself, we inclined to the opinion, that the fœtus must have been originally discharged, unobserved, and that the subsequent attacks of hemorrhage were dependant upon some debility of the organ itself. Viewing the case in this light, the lady was put under such a course of treatment as we believed would give tone to the general

system, and be most likely to restore its different organs speedily to their wonted healthy equilibrium. At this crisis the case was watched most carefully. I continued to see her every second day until the 31st instant, after which, every day until the 13th of April, most strenuously pursuing the course marked out in the consultation previously had. During the whole of this time nothing unpleasant occurred. Every thing bore the most favorable aspect and betokened a speedy recovery. On the night of the 13th I was suddenly summoned to attend her. Making the necessary inquiry on my arrival, I found that I was called, not in consequence of any return of hemorrhage, but because the patient had suddenly experienced an unaccountable sensation of something indicating the protrusion of the uterus itself. There was no flow, and no pain whatever except in the right thigh. On examination, I readily discovered an oval, but rather flattened tumor, hanging in the upper part of the vagina, and communicating by a slender neck with the uterus. After exploring its connexions as carefully and thoroughly as possible, I determined to take it away. This was readily accomplished with the fingers, and without much force. On washing it, I found one of its surfaces smooth and polished, the other slightly rough—the whole mass much condensed and of a deep, dark, mahogany color. On opening the smooth surface there was discharged a small quantity of liquid. Imbedded in the tumor, and of the same color, there was found a fœtus of about the forty fifth day, regularly attached by its cord. Thus at once proving that our first impressions of the case were correct, and our subsequent ones incorrect.

Taking in connexion all the circumstances from the time of conception until the hour of delivery, the following conclusions seem clearly manifest.

1st. That conception had taken place, accompanied by all the usual and unerring phenomena in *her case.*

2d. By some unknown and inexplicable cause the vital process in the fœtus was arrested about the forty-fifth day.

3d. From which period the usual signs and symptoms of pregnancy gradually subsided, with the single exception of the return of the catamenia.

4th. The fœtus and secundines remained in utero until the full

expiration of the term of nine months, although purely foreign bodies.

5th. Then the whole mass was expelled, without the intervention of the usual labor pains.

The fœtus and secundines of the above case will be shortly placed in the extensive Anatomical Museum attached to the University of Maryland, where they will be open to those members of the profession who may be desirous of examining them.

The probable truth of the fourth proposition just advanced, is fairly substantiated by the following facts. Mrs. W******* was delivered of a large, healthy male child, on the morning of the 18th of March, 1836. After the birth of the child, the secundines were delivered in due time, nothing in the slightest degree unnatural occurring. After pains were severe, but not unusually so for her.

On the fourth day after her delivery, in an effort to evacuate the bowels, there was discharged from the uterus, a large globular mass of fleshy substance, with a short pointed cord attached, and regularly enveloped in membrane. On cutting into it, it presented a firm, condensed appearance.

The lady had doubtless conceived twins. The one progressed to maturity, and was brought forth. The other, although blighted at an early period, remained in the uterus, without apparently interfering in the least with its fellow, until the full period of gestation was completed, and was then evacuated on the fourth day following the delivery of the first, presenting the appearances above mentioned.

Remarks on several of the formulæ of the U. States Pharmacopœia—By David Stewart, *Pharmaceutist, Baltimore.*

Since the last revision of the United States Pharmacopœia, there has not perhaps occurred a theory which will have a more important influence in improving its formulæ, than that of the application of the displacement process to the preparation of tinctures, aqueous solutions, extracts, &c. I was first struck with its utility during the formation of a solution of opium, about two years since, in order to the preparation of morphia,—and, as the simple means used on this occasion may be substituted for the filter and screw press, in the separation of all the tincture from the dregs of opium in the preparation of tinct. opii, without the presence of that gelatinous precipitate which always accompanies the use of the latter: I will recommend it to those who wish to economise in this and other preparations.

Bind together the long and short legs of two glass syphons with a narrow strip of flannel, at a point from which they will nearly reach to the bottom of the demijohn or vessel containing the tincture—continue the operation until upon the introduction of the tubes, the mouth will be obstructed by the flannel—invert the demijohn and suffer the tincture to filter through the coil of flannel, until all of it has escaped except that which is retained by capillary attraction in the dregs. Then insert a small funnel into the long foot of the syphon, outside of the demijohn, and introduce into the demijohn a quantity of water sufficient to displace the remainder of the tincture.

Thus an amount of tincture can be obtained, equal to the spirit used in its preparation. This will be considered quite a desideratum in the preparation of the vinum rad. colchici of the United States Pharmacopœia, where the proportion of root ordered is so great, that nearly all the wine is absorbed—but in adapting the process to this and some other preparations, I would recommend that the water used in displacing, should be charged with about one-fifth its measure of alcohol, in order to prevent it from reviving the mucilage with which the root abounds.

Decoctum Sarsaparillæ Comp. The officinal formula for this preparation, is a very imperfect one, as the product is always charged with inert oxidised entractive matter and fecula to such a degree that it is impossible for any one to use it for any length of time, if at all. While conversing upon this subject, about two years since, with one of our most eminent medical men, and comparing the value of the several preparations of sarsaparilla, I was struck with the decided preference he gave to the diet drink, if it could be prepared in the form of ptisan, and determined to apply the principles of the above process to its preparation. My success was far beyond my anticipations, as the result was a concentrated solution of all that is valuable in the ingredients, free from fecula, and the entractive matter is apparently free from the disposition to oxidise, as it could be reduced to a soluble extract. As I communicated my ideas upon this subject to one of our most skilful pharmaceutists at the time, and the experience of two years has confirmed our impressions as to the superiority of this process, I will give it in detail, and refer to an article which has since appeared in the American Journal of Pharmacy, vol. 10, page 10, where a number of experiments are recorded, confirming the above statement.

I am in the habit of using a small tin funnel, the bowl of which does not exceed 4 inches in diameter, to which is soldered a cylinder or cone of tin, 11 inches long and $5\frac{1}{2}$ inches wide at the top—into the neck of this is introduced a small willow cap, such as generally cover the mouths of demijohns, which is sometimes enveloped with a small piece of flannel, to prevent the finer particles from passing through. The ingredients after having been well bruised, are introduced and kept in their place by a perforated earthen sphere or plate, such as generally accompany infusion pitchers. A quantity of water equal to the desired product, at about the temperature of 180°, is now passed through the ingredients, and the operation is repeated until it appears saturated; upon which it is set aside, and another portion of hot water used in like manner, until the product is but slightly colored. The displaced liquids are now evaporated in a well tinned copper dish to the quantity indicated.

I have been thus minute in describing the peculiarities of this apparatus, as we have found it well adapted to the preparation of

mel scillæ c., syr. sarsæ., syr. rhei et senna, syr. rhei, &c. After several years experience in the preparation of the last mentioned syrups, according to the improved formula which I have published in the fifth volume of the Journal of Pharmacy, page 33, I would confidently recommend it as a substitute for that of the Pharmacopœia, as it is not apt to ferment, and the spirit used as a solvent for the rhubarb, &c. is evaporated.

Acidum Hydrocyanicum. The presence of a small quantity of cyanuret of mercury seems to be necessary to the preservation of the acid hydrocyanic of the Pharmacopœia, as I have discovered that when the solution of cyanuret of mercury is super saturated with sulphueretted hydrogen, it commences to precipitate carbon a few hours after its separation from the sulphuret of mercury. After much experience in its preparation according to the above process, I have resorted to the process of Gay Lussac, described in the Dublin Pharmacopœia, using half the amount of water ordered, and diluting the product with alcohol, to form a solution equal in strength to the officinal formula. No change has ever been discovered in this preparation.

Case of Stricture of the Urethra, treated by Elm Bark Bougies, by M. L. Linton, M.D., *of Springfield, Ky.*

[Addressed to one of the Editors of this Journal.]

Philadelphia, Oct. 2, 1839.

Dear Sir:

I embrace the earliest opportunity afforded me, of giving you the outlines of the case of urethral stricture to which I alluded yesterday.

The subject was a young man, (S. Champion,) about 25 years of age, and healthy in all respects, except in the particular just mentioned.* With it he had, when I first saw him, suffered long and excruciatingly. There would often be a retention of the urine for several days; and to produce even a partial flow, repeated bleedings, active catharsis, and the most efficient diuretics were necessary. The catheter could not be introduced of any size or shape. Under these circumstances, I commenced the use of the slippery elm bougies. They were made of the dried bark, about the size of an oat straw, and then placed in hot water for some minutes previous to using them; in which process they became covered with a tolerably thick mucilaginous coat, and very pliant. In my first attempt at introduction I failed, but no pain was produced; on the contrary, the patient professed some relief, which I attributed to the mucilage which remained on the mucous coat, after the withdrawal of the instrument. The part soon acquired a toleration of the instrument, and it was introduced. The patient was then directed to increase the size of the bougie, and introduce it himself twice or thrice per diem. From that time he was his own surgeon, and no one could have managed the case better. He made some hundreds of the instruments, and in-

* One of the editors of this Journal having been acquainted for some time with Dr. Linton, was called on by him, on his way through Baltimore to sail for Europe. The above case was mentioned, and being requested, was kindly furnished for the Journal. We are gratified to be able to announce that Dr. Linton has promised his valuable aid as a foreign correspondent.

dulged himself frequently in the luxury of using them. One more remark is necessary, viz: that the result was a perfect cure.

M. L. LINTON.

N.B. I should have remarked that I was led to the above practice, by a communication from the pen of Dr. McDowell, of Virginia.

REMARKS ON THE PRECEDING CASE.

Dr. Linton, from the haste necessarily attendant upon his journey, has been able only to state the fact that he is indebted to Dr. McDowell, of Virginia, for the suggestion. We deem the subject so full of practical usefulness, that we should feel it wrong not to give our readers an analysis of the views of Dr. McDowell, in introducing elm bark into the practice of surgery. We shall therefore give a condensed abstract of the subject, so as to bring it within the knowledge of our readers.* The elm bark in form of tents, bougies and catheters, has been used by Dr. McD. in many very important surgical diseases, with most remarkable benefit.

Lumbar Abscess.—In a case of lumbar abscess where it was necessary to enlarge the fistulous opening, and the patient objected to the bistoury, a tent of slippery elm was used, made of a slip of the seasoned inner bark, long enough to reach the bone; a small portion of it being bent down so as to enable it to be withdrawn. The tent was smoothly polished, then dipt in warm water it became very slippery, and was inserted into the sinus where it remained twelve hours, without producing one disagreeable sensation. On its removal, the sinus was found enlarged from one-fourth to one-third of an inch, by the expansion of the seasoned tent. Other tents were used, still increasing the size, until the opening was made as wide as was deemed necessary.

Mammary Abscess.—Tents of the elm were found very useful in mammary abscess, in a case pronounced cancerous, and extirpation believed inevitable. The use of these tents in six or seven days, produced a secretion of healthy pus throughout the sinus. After the secretion of healthy pus is produced, the tents are to be

* Vide Western Journal of the Medical and Physical Sciences, No. xliii.—Dr. McDowell on Elm Bark in Surgery.

gradually reduced in length, and made thinner at the point, but not in width.

Gun Shot Wounds.—Elm tents possess a great superiority in cases where it is desired to widen a sinus, and prepare it for the extraction of foreign substances or loose bones. An interesting case of gun shot wound is given, proving their value.

Strictures.—In this distressing and often obstinate form of disease, the elm bougie has been used with the most beneficial result. An elm bougie, formed of the dried inner bark, shaped to the size of a bougie that would pass the stricture, after being steeped a few minutes in warm water, is introduced and permitted to remain some hours. The bougie expands and there is some difficulty in removing it. There is found upon it a perfect impression of the stricture. A very interesting case of stricture, treated in this manner, is given, where the patient was "tormented with rigors, emaciation extreme, complexion chlorotic, tongue furred and countenance unhappy." The disease had been gradually increasing for three years, during which he had been under the care of various and eminent physicians, but with little or transient benefit. He was engaged in working gold mines, but after ineffectually visiting several places and being disappointed in his efforts to obtain surgical aid, he relinquished all his golden expectations and came back to B. to die among his kindred. The physician there tried cauterization, the stilet and usual treatment for four weeks. The patient then called in Dr. Mc——. He ascertained that the stricture was about three inches down, that it only admitted a bougie smaller than a crow quill. He was at first puzzled with the case, but in the course of his reflections, it occurred to him that one of the expanding slippery elm tents might be shaped into a bougie, that would expand and cure this stricture. He forthwith commenced the treatment. The dilatation was at first very gradual, but in ten or twelve days so large a bougie was required as to make it necessary to double the bark by glueing the flat sides of two pieces together. The patient was dismissed cured, February 17th, (came under treatment January 13th,) and has not since been troubled with the disease.

The elm bougie is not recommended as a substitute for the caustic or stilet, but only as an additional agent, but still it is believed, in a great majority of cases, to be superior to either of

them, or any other plan within the author's knowledge. Since 1831, Dr. M. has used no bougies but those of elm bark. He uses the glue sound for examination of the stricture, but invariably cures them with elm bougies. But he states that he has not always made as speedy a cure as in the case reported.

Fistula in Perineo.—An interesting case of this disease is reported, "in which there were several fistulas proceeding from different orifices in the membranous parts of the urethra." From the anterior sinus, forward, the urethra was totally impervious for the space of at least two inches, filled with a grisly callus. The patient was much reduced, and labored under hectic, with copious night sweats. The Doctor proceeded to make an opening through the obliterated portion of the urethra, with a stilet. A silver catheter was then introduced into the bladder, and the fistulas were increased—the wound dressed—the silver catheter removed—an elm catheter introduced into the bladder and permitted to remain until all was healed. It is worthy of remark, that this patient did not keep his bed a day after the operation; walked about the streets with the catheter in his urethra, and never complained of its producing any pain or uneasiness.

The mode of preparing the elm bark catheter is the following: a thin strip of the inner bark, from one to one and a half inches wide, is seasoned just enough to preserve its pliability—shave the edges and smear them with mucilage or glue. You then wrap the bark either spirally or longitudinally around a stilet, and roll with rope. You lay a thin coating of tallow or beeswax over the wire to prevent the glue adhering to it. The great advantage the elm catheter possesses over every other, is, that from its becoming coated with mucilage, it acts as an emollient to the inflamed parts.*

Fistula Lacrymalis.—Several cases are reported, in which the duct was nearly, and in one case totally obliterated, and cured by the slippery elm bougies. In the worst, the callus was perforated with a sharp, triangular, pointed probe, and dried elm bougies were inserted until it was dilated to full size. The cure was perfect.

But in no form of surgical disease does Dr. M. expect more

* Query—Does sellulous matter collect on these catheters?

than in calculous affections. He believes that the gradual dilating power of the elm bougies was to enlarge the urethra, as to greatly facilitate and ensure the successful use of instruments for lithotrity—or to enable calculi of considerable size, to escape spontaneously, particularly from the female urethra. Another great advantage of using the elm as a dilating substance, is its soothing the irritation and sensibility of the parts, so as to enable the patient to endure instruments of a larger size, and for a longer period.

A very important suggestion is, the use of the elm in the treatment of that most distressing, and generally admitted, too often incurable form of disease, enlargement of the prostrate gland. We know there is great difficulty in introducing an instrument in these cases. This would easily be obviated by these bougies, and it promises certain advantage—that the pressure from the dilating power of the instrument might so change the action of the part as to effect a cure.

How far it would do to treat gonorrhœa by these bougies alone, is well worthy of a trial. This has occurred to us while reviewing the papers of Dr. M. We are inclined to believe that to direct a patient to wear an elm bougie, would be attended with advantage in gonorrhœa.

Before concluding the notice of Dr. M's views, we will state that Professor Drake, of Cincinnati, has tried the use of the elm bougie in a case of fistula lacrymalis. He used a plug about a line in diameter, with a small head at one end. It was immersed in warm water for a few seconds, until the surface became softened, when it was introduced. The next day it was extracted; it had swollen a little, and was covered with pus. It was comfortable to the patient, and was the only substance introduced from that time. Professor D. gave the elm decided preference over silver probes, and asserts that nothing else could have done so well, and that it is applicable to a great many purposes in medical use, to which it has not been applied.

We must confess that we have been much gratified and interested, by the practical applications of this valuable native substance, and our pleasure was only marred by the fear, lest in the introduction of a substance like this, there should be danger of its being broken, and remaining in the canal of the urethra—the con-

sequences of which might be quite perplexing, and even serious; and Dr. M. himself, deems it necessary to say, "some caution is necessary, in using bougies or catheters of elm; although the bark possesses a tenacity surpassed by that of few trees of the forest, yet when seasoned, and in a dry state, it would be liable in the hands of a careless or awkward operator, to break off in the urethra or bladder. To obviate this danger, it should be immersed in water for a longer period when it is very dry, which will restore tenacity to its outer fibres."

On the use of Gold-dust and Iron-filings as a galvanic antidote to Corrosive Sublimate, and all the other poisonous compounds of Mercury. By T. H. Buckler, M.D. *of Baltimore.*

The compounds of mercury being without exception, more or less poisonous, it would seem that the only single method of rendering them innocuous, is to revive the metallic mercury, and thus separate it from the agents with which it is combined. Of all the compounds of mercury, corrosive sublimate—*bichloride of mercury, oxymuriate, corrosive muriate*—is the one for which it is most desirable to procure a suitable antidote. It is somewhat curious that this agent, possessing so wide a range of chemical affinities, should have baffled chemists and toxicologists for so long a time, in their numerous efforts to find some direct chemical agent, capable of decomposing it in the stomach, and thereby prevent the corrosive and deadly action which so surely follows its presence—unless in the smallest quantity—in that organ. The difficulty has arisen, of course, from the more or less poisonous nature of all its compounds. It has even been shown that corrosive sublimate possesses the properties of an acid, and unites with the alkalifiable bases; but here, as in other instances, the compounds resulting are even more intense irritants than the bichloride itself. The inutility of finding an antidote to an agent so deadly in its effects, may be urged by many, although it is not a more powerful irritant than oxalic acid, for which latter we have, luckily, a ready and certain antidote, and on this account alone, we are enabled to predict a very different result where it has been taken into the stomach, than we would be likely to foretell if corrosive sublimate were swallowed. It is therefore idle to say, that it is useless to attempt to find some more certain antidote to this most deadly poison: more especially, when even the observations that have been made on poisoning with prussic acid, have been productive of practical advantage. In this view, the importance of having a suitable antidote, is growing daily more apparent; for, setting aside the instances in which it may be taken with suicidal intent, and the risks incurred by its universal employment in de-

stroying insects, it is extensively used in the arts, and has been introduced of late, especially in the operation of tanning, and also to prevent the decay of timber: thus exposing a numerous class of operatives to the accident of swallowing it. Even a familiar acquaintance with the deadly nature of corrosive sublimate, is not always a guarantee against the risk of taking it into the stomach. Thenard, the chemist, while at lecture, on one occasion swallowed a concentrated solution of this salt, in place of water, but luckily discovered his mistake before he had taken enough to prove fatal. A druggist of our city, while talking inadvertently, took from his counter a lump of the bichloride and swallowed it. He had fortunately eaten a full meal a short time before, and on taking an emetic of sulphate of zinc, the piece was instantly rejected, with the contents of the stomach. It is well known that numerous agents have been at various times suggested as capable of rendering this salt innocuous. The only antidotes now recognised are gluten and albumen; the former having been suggested by Professor Taddei, of Florence—the latter by Orfila. Each of these promised to be perfect when first announced; but that of Orfila, for many reasons the best, is now the established antidote. Recent investigations have shown that albumen is not so certain in its action as was at first supposed, it having been ascertained that the precipitate which it forms, is re-dissolved when the albumen exists in excess. "The precipitate is soluble in a considerable excess of albumen: so that whenever albumen abounds in any fluid to which corrosive sublimate has been added, a portion of the mercury will always be found in solution." Christison, p. 279. It is therefore apparent, if this be true, that if it were possible to know the quantity of the solution our patient had taken, we could not in the hurry of administering albumen, (even if we knew the exact quantity required,) give just so much as would neutralize the solution, but must be constantly liable to the error of giving too little, or so much as to keep the salt of mercury in solution. Albumen acts by causing the disengagement of one portion of chlorine, thus converting the bichloride into calomel, which renders the patient liable to be salivated, an evil which, if none other existed, it would be as well if possible to prevent: besides, toxicologists number calomel amongst the compounds of mercury for which it is desirable to procure an antidote. Perhaps another reason why the exhibition of albumen

is not followed with better success, arises from the fact that corrosive sublimate is not more active in its affinity for albumen than for the mucous membrane of the stomach itself: the experiments of Berthollet having shown that the same power of reducing the bi. to a proto-chloride, belongs to all animal solids and fluids. On this account, no chemical diversion can be excited by the presence of the albumen, since the solution of mercury does not unite with it by virtue of any peculiar elective attraction, over that which it has for the tissues of the stomach and bowels; on which latter, it exerts its energies often to a fatal extent, although albumen is present in them at the time.

Not long since, we were called to witness a most melancholy case of poisoning in a young gentleman of robust health, who had swallowed, with suicidal intent, three ounces and a half of a saturated solution, (about fifty-five grains,) of corrosive sublimate. Eggs were at hand, and ten minutes had not elapsed from the time he took the poison, when we gave him at least a quart of a solution of albumen, and continued to administer it for some hours. It is not our purpose to state this case fully; suffice it to say, that the symptoms were such as are usually described, and most violent. There is one circumstance, however, worthy of notice in this place, as it serves to shew the weight of the objections above stated—it is this:—The bowels were not acted on until nearly three hours after the solution was swallowed, (ample time, we should think, for the affinities of the mercury to have been supplied by the albumen,) and yet, when the dejections did take place, they contained so much mercury in solution, that the skin surrounding the anus was excoriated, precisely as if a strong solution had been directly applied. In spite of the albumen, which was largely administered, the corrosive action was exerted on the mucous membrane of the stomach and bowels for eight hours, producing during the whole of this time, the most excruciating agony. So soon, however, as the chemical action was at an end, there was comparative calmness and freedom from pain. He died on the eighth day, and we feel warranted in the belief, that had we possessed some agent capable of decomposing the solution within the first half hour, his chance of recovery would have been good. We do not mean to disparage the importance of albumen as a demulcent and diluent, and are disposed to believe

that more good is to be attributed to these qualities, than to its chemical agency.

It would seem, then, that the object is still to obtain an antidote, for which corrosive sublimate possesses affinities largely predominant over the tendency it has to combine with animal constituents, and it is with the hope of fulfilling this indication, that we have been induced to make the following experiments. The agents by which we propose to render the bichloride innocuous, are iron-filings and gold-dust: it will be at once seen that their mode of action is referrible solely to the phenomena of galvanism. Thus, if we place a drop of a solution of corrosive sublimate on a polished piece of gold or iron, the surface of the two metals will remain bright at the point covered by the drop for a long time, unless we bring the iron and gold in contact, through the solution, when both metals become instantly tarnished: the iron oxydized, and the gold coated over with metallic quicksilver. If we drop into a solution of mercury a polished card-tooth, to which we have caused particles of gold to adhere, it will become tarnished the moment it comes in contact with the fluid, and a globule of quicksilver, combined with the gold, may be seen hanging to it, as it falls to the bottom of the solution. If, in like manner, we throw gold-dust into a solution of mercury, no action will take place until we add iron-filings, when the metallic mercury is at once revived, and will be seen to precipitate in a state of amalgam with the gold: at the same time, the oxygen from the corrosive sublimate goes over to the iron, and forms an oxyde of that metal, with which the chlorine combines, leaving a hydrochlorate of iron in solution. The products of this decomposition are wholly innocuous, the amalgam of the two metals being entirely inert, and the hydrochlorate of iron possessing only the properties of a slight tonic. Two grains of gold and two of iron are sufficient to decompose five grains of corrosive sublimate, so that no trace of mercury can be detected by the most delicate tests.

In order to insure a rapid decomposition of the salts of mercury, it is important that both metals should be in the minutest state of division. The iron we made use of was reduced almost to an impalpable powder, by working a piece of steel with the finest file. The gold can be procured at all times, in the state of bronze; as this is liable, however, to impurities, it is better to have it prepared

expressly for the purpose, in the ordinary way of reducing it to powder, or by filing. Gold-leaf may also be used. Both metals should be so minutely divided, as to be capable of suspension for a short time, in any fluid, and form, when agitated in water, as it were a gold and iron solution. For it is the galvanic action excited at the moment, that each particle of one metal comes in contact with a particle of the other, that the corrosive fluid immediately surrounding them is decomposed; and hence, in order to render rapidly innocuous, a considerable bulk of a solution of corrosive sublimate, it is important that both metals should be as widely and intimately diffused in it, as possible. This method of decomposing the bichloride, applies with equal force to all the more soluble compounds of mercury for which no antidote has yet been suggested. The deuto-iodide of mercury in water, is instantly deprived of its bright vermilion lustre, on the addition of gold and iron, and a grey precipitate, composed of an insoluble iodate of iron and an amalgam of gold and quicksilver, is the result. If we take the peroxyde of mercury, (red precipitate, red oxyde of mercury,) and throw in gold and iron-filings, the oxygen of the precipitate instantly passes over to form a peroxyde of iron, while the revived quicksilver amalgamates with the gold. So likewise, the proto-nitrate and acetate of mercury, when similarly treated, form severally a nitrate and acetate of iron, while the metallic mercury being revived, combines of course with the gold.

The more insoluble compounds of mercury, for which it is extremely desirable we should possess an antidote, are not so readily decomposed by the presence of gold and iron: but we are aware, at the same time, that this class of agents act more slowly on animal tissues, and also that some soluble salt must be formed, by the action of the stomach, before they can prove deleterious. These compounds are, first, cinnabar—*bisulphuret or vermilion:* second, turbith mineral or *sub-bisulphate:* third, white precipitate or *hydrargyrum ammoniacum* of the pharmacopœia: amongst these calomel may also be classed. Now, before any of the last named substances can prove deleterious, some soluble salt must be formed by the action of the stomach, which, when formed, instead of acting on the coats of the stomach, will be decomposed by the presence of gold and iron, as we have before seen in regard to the other soluble salts. It was our intention to have made a number

of experiments on animals, aided by Professor W. R. Fisher,* who kindly offered his assistance; but owing to the late illness of this gentleman, our plan was defeated. For the purpose, however, of ascertaining how far the proposed antidote can be depended on, when brought to the test of positive experiment, and to be assured that no deleterious compounds result from this method of decomposing the salts of mercury, we procured four half grown rabbits, on which the following experiments were performed, assisted by Mr. D. Stewart, one of the ablest chemists and pharmacologists of our city, and well known to the profession generally on account of his valuable contributions to the American Journal of Pharmacy.

Experiment 1st. Injected into the stomach of a half grown rabbit, one grain of the peroxyde of mercury in ʒ ii. of water, and shortly after, five grains of iron-filings and the same quantity of gold-dust, in half an ounce of water. This rabbit manifested no pain or distress of any kind; began to eat shortly after the experiment was performed, and has not since appeared the least sick.

Experiment 2d. Gave in like manner, to a rabbit of the same size and strength as the preceding, three grains of the deuto-iodide of mercury in ℥ ss. of water, and used as an antidote, gold-dust and iron-filings, each six grains: result the same as in the preceding experiment; this rabbit is now thriving.

* This gifted son of Pennsylvania, during twelve years' residence in our city, devoted his time and the energies of a highly cultivated intellect, almost solely to the study of chemistry and pharmacy. Two summers since he was called, unsolicited on his part, to the chair of chemistry in the University of Maryland, a station which he occupied with distinguished credit to himself, and marked advantage to his class. His lectures, written in a style remarkable for its elegance and force, were delivered in a manner at once animated and natural, while the happiest facility of illustrating, by experiment, the numerous and varied points under discussion, evinced a familiarity with chemical manipulations, which can only be acquired by long experience. That he possessed, indeed, all the qualities essential to an accomplished and eloquent teacher of chemistry, was accorded by all who had the gratification to hear him. Ever ready to take the lead in any thing useful or scientific in its objects, he had laid plans to establish a College of Pharmacy in our city. During the past spring, in the pride of youth and usefulness, he had the misfortune to be attacked with partial paralysis of one side, which induced him, so soon as he had sufficiently recovered, to abandon the arduous duties of his occupation here, and seek repose at home. We rejoice to hear that he is rapidly convalescing, and we sincerely hope that he may soon regain his health, and be enabled to reap the ripe harvest of his well spent time, in the continued pursuit of a science to which his talents promised to lend important aid.

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Experiment 3d. Injected into the stomach of another rabbit of the same size and age, three grains of the white oxyde of mercury, and some minutes after, administered four grains of finely divided gold and five of iron-filings: the rabbit appeared perfectly well until the next day, when it lost its appetite and seemed drooping and sick; on the third day it commenced eating, and is now perfectly well.

Experiment 4th. Injected into the stomach of the last rabbit, four grains of corrosive sublimate in ʒ ss. of water, and used as the antidote, four grains of gold-dust and six of iron-filings in ʒ ss. of water: this rabbit began to eat shortly afterwards, manifested no distress, and is now perfectly well.

In all of the above experiments, a small quantity of gum was added to the antidote, for the purpose of suspending the metals. It being impossible to know, *a priori*, that gold and iron in a minute state of division, might not alone prove fatal to a rabbit, our first experiment was made more to determine the effect of the antidote itself: therefore only one grain of the peroxyde of mercury was given—a quantity insufficient to produce death; and yet calculated to give rise to great distress, or at least loss of appetite, unless decomposed by the antidote. It appeared to be conclusive from this trial, that gold and iron exert no deleterious effect, and also that the peroxyde must have been decomposed, inasmuch as the rabbit began to eat shortly after the experiment was performed, and has not since appeared the least sick. Dr. Niel has recommended an ointment, composed of one grain of finely divided gold to thirty-six of lard, to be applied to a blistered surface, in scrofulous affections, as a substitute for the hydrochlorate and other preparations of that metal. What possible effect Dr. N. could have anticipated from this plan of treatment, we are at a loss to determine, since gold is only soluble in nitro-muriatic acid, and cannot, therefore, undergo any change if applied to a blistered surface, or introduced into the stomach. We believe that one grain of the deuto-iodide of mercury would be sufficient to kill a rabbit, and we are justified in this belief, from the distress often occasioned where it is administered medicinally, in doses of one-eighth of a grain: and yet, in our second experiment, three grains of this agent were given, without any sensible effect.

We have before observed, that gold and iron do not decompose

the more insoluble compounds of mercury, when brought in contact out of the stomach. The action of these metals as an antidote to the insoluble compounds of mercury generally, and their effect in our third experiment, in which three grains of the white oxyde of mercury* were given, may, however, be explained by the phenomena which occur in one of the methods of making hydriodate of potash: it is known to chemists, that iodine and potash may remain in water without forming the above salt, unless a piece of iron be dropped in, when a play of affinities is at once aroused, and the iodine leaving the iron, for which it has a powerful affinity, untouched, combines instantly with the potash. Now a part analagous to that which the iron here plays, is performed by the stomach, when the insoluble compounds of mercury are swallowed, and gold and iron are at the same time present: the stomach forms, out of the insoluble compound, a soluble salt, which instead of acting on the coats of that organ, is instantly decomposed by the antidote. The stomach, in every instance, being the medium, like the iron in the case of the iodine and potash, by which the affinities are brought into play.

The experiments of Sir B. Brodie and others have proved,

* A medical gentleman of our city, ordered for a convalescent patient, half an ounce of phosphate of soda; the prescription was taken to an apothecary, who sent in its stead, half an ounce of white oxyde of mercury. The nurse in attendance, when about to mix and administer the dose, suspecting it was not the medicine intended, sent it back to know if it was right; the apothecary, whose hardihood only equalled his ignorance, declared it to be the medicine ordered. With this assurance, the nurse prepared and gave to the unfortunate patient, the whole half ounce of white oxyde, which soon produced the most violent symptoms, and proved fatal in about thirty-six hours. A short time after the dose had been given, the physician was sent for, and believing his patient had taken poison, he went to the apothecary and asked to see the bottle from which his prescription had been supplied: he was shown a bottle marked phosphate of soda, but which was found, on examination, to contain white oxyde of mercury; the apothecary still persisting to the contrary: sufficient evidence that the mistake was not the result of accident, but could only be attributed to the grossest ignorance.

This fact, like many others that might be adduced, shews the absolute importance of our having a College of Pharmacy; indeed, in every place where physicians have, very properly, ceased to keep their own medicines, and have thus resigned into the hands of others, one of the most important branches of our science, a College of Pharmacy, with full power to grant diplomas, appoint inspectors of medicine, and regulate the sale of poisons, has been found indispensable. So intimately is the apothecary identified with the physician in the public mind, that any fault of the former will be visited on the latter, and any act of ignorance on the part of a dispenser of medicine affects the confidence of the people in the science generally: in proof of which, it is only necessary to remember the want of confidence felt by all who dealt with

that where a solution of from six to twenty grains of corrosive sublimate is injected into the stomach of a full grown rabbit, it very soon produces difficult respiration, convulsions, and soon after death. In our last experiment, therefore, in which a solution of four grains of corrosive sublimate was injected into the stomach of a half grown rabbit, death must have ensued, unless the gold and iron had been given.

A solution of corrosive sublimate acts on the stomach purely as an irritant, or as a caustic, accordingly as a weak or strong solution is swallowed. Toxicologists have not, so far as we know, made any practical distinction between the irritant and caustic strength of a mercurial solution, but we deem it of the greatest importance, in the treatment of poisoning with corrosive sublimate, to notice the difference. A solution of this salt, in its caustic strength, will produce an irrecoverable condition of things in a few minutes; whereas a solution only irritating in its effect, may remain on the stomach for a greater length of time, without producing any fatal lesion. For example: we applied a saturated solution of corrosive sublimate to a blistered surface; it produced the most excruciating torment, and on examining the surface some hours after, the true skin had

apothecaries, for some time subsequent to the melancholy instance above stated. It is through the same channel, that medicine will become undefinably associated in popular estimation with quackery; for how is it now? The able chemist and pharmacologist in whom the physician places a well merited confidence, is not clearly distinguished from the commonest retailer of drugs without knowledge of their qualities, or the notorious vender and advertiser of quack nostrums. In the present exact and elevated state of our science, it is right that it should be severed from all connexion with every thing which has even a shadow of quackery; and we feel confident that nothing will effect this end, repress the evils already pointed out, and tend, at present, so much to supply the wants of our profession, as the establishment of a College of Pharmacy.

The city council of New Orleans have lately, in a commendable spirit, enacted laws prohibiting the publication of quack remedies, having imposed a fine of twenty dollars on any one who advertises a specific in the daily journals, and a penalty of one hundred dollars is incurred for the offence of placarding a remedy at the corners of the streets. We can scarcely look at a daily newspaper, without seeing at a glance, certificates palming off the virtues of some notorious patent specific, the advertisement of quack nostrums by an apothecary, and the wonderful performance of some ycleped surgeon. So long as this hybrid jumble of science and quackery comes daily before the public eye, it is useless to inveigh against mountebanks, and not to be wondered at, that a man when he is taken sick, should doubt whether to send for some specific, or a physician. We expect soon to see some journal which shall be devoted to science, surgery, quack specifics and the fine arts; and until such publication shall appear, we think surgeons who do not wish to incur an empirical reputation, would do well to confine themselves

lost its vitality in patches, which presented a white, polished, and shining appearance; about the third day, all the parts which had assumed the character described, were found separated at their margins from the healthy skin, by a clearly defined fissure, and between the sixth and tenth days, they came away, leaving healthy ulcers with perpendicular walls, and corresponding exactly to the thickness of the skin in depth. These sores healed up in a few days by granulations from their bases. On the contrary, if we apply a weaker solution, (ten grains to the ounce,) to a blistered surface, it produces an acute burning pain, the true skin will afterwards be found inflamed, but no lesion will have taken place. With these facts before us, it would seem proper in all cases where a saturated solution has been swallowed, to give a quantity of water sufficient to dilute the solution contained in the stomach, to such an extent as to destroy its caustic action, which if not instantly arrested, must render death inevitable. By adopting this course we should prevent the direct caustic effect of the solution, have time to procure the antidote, which should be given in all cases so soon as it can be obtained, and in the after treatment we should have simple inflammation, instead of death, of the

to the pages of a medical journal, and all apothecaries who desire the patronage of physicians, would be wise to discontinue the advertisement and sale of quack specifics. The small capital required to establish an apothecary shop, and the large advance on the sale of medicine in small quantities, offers an inducement for a great many disqualified individuals to embark in the business. The profit arising from the sale of drugs, is no more than a fair compensation to those who have spent previous years of hard labor, in making themselves chemists; but in the case of all such as become apothecaries out of mere thrift, the profit is unjustifiable and the pursuit itself criminal. Many of these worthies are in the habit of prescribing and administering extemporaneously, to a large number of the ignorant and credulous, who are incapable of distinguishing between them and the well educated physician. One of these *quasi* doctors who set up a drug store some time since, was called on by an old lady, to know if he could not give her something for nettle rash, (urticaria). The doctor examined the eruption very carefully, and came to the conclusion that cream of tartar was the remedy, and forthwith prepared the dose. The old lady was loath—instinctively perhaps—to take any thing internally, and said she would prefer some external application: the doctor persisted, however, that he had hit on the proper remedy, and in order to overcome the objections of his patient, took half the dose himself, declaring at the same time, that it was not unpleasant to the taste; which argument proved irresistible, and his patient swallowed the other half, and then took a seat, whether for the purpose of ascertaining before she left the shop that she had not taken poison, or from an indisposition to move, we cannot say. Meanwhile, the doctor, delighted at his prowess, related most eloquently, other instances of his success, and doubtless thought this last act ominous of a

mucous coat of the stomach to contend with. We must recollect, however, that the mercurial solution is rendered more slow, but not less certain in its fatal effect, by dilution; no time is therefore to be lost in decomposing it. A gentleman, at one of our principal hotels, ordered a glass of cider, in the act of swallowing the first mouthful of which he was warned by the burning taste of the fluid, that he had taken something wrong: in a few minutes he was seized with the most violent, burning pain in the stomach, and along the line of the æsophagus. A physician was sent for, who found on his arrival, that a saturated solution of corrosive sublimate, in whiskey, had been taken instead of cider. Albumen was freely administered, in spite of which the symptoms grew more violent, and death ensued on the third day. The mistake originated in the heedlessness of a servant, who after using the corrosive solution for the purpose of cleansing bedsteads, had carried the bottle in which it was contained to the bar, and placed it on the shelf where the cider was kept. Now, in all cases similar to the one just stated, in which a solution of mercury was swallowed in a very concentrated state, it would be proper to administer, immediately, a draught of water sufficient to destroy its

brilliant reputation. He was interrupted, however, by violent sick stomach, which his patient began also to experience. Great consternation arose, and a medical gentleman was sent for, who found on his arrival, that the modern Æsculapius had given, by mistake, tartar emetic instead of cream of tartar. The truth of this incredible performance is attested by the respectable medical witness who was sent for at the time. Wherein is the utility of laws prohibiting the practice of physic unless under the authority of a diploma, if the pretext of keeping an apothecary shop is always a ready means of evading them? The importance of having suitable persons appointed to inspect the drugs sold in our market is obvious; we have inspectors of flour and tobacco, of the excellence of which the dealer, as well as the consumer, is a fair judge, and yet medicines, the character of which none but a good chemist can determine, are permitted to pass from hand to hand, and to be given in the conflict between life and death, without any security that they are calculated to meet the indication for which they are used, or their having come under the eye of any one competent to judge of their qualities. The fact is notorious, that large sums are annually made by the manufacture of adulterated chemicals, and it is equally well known to the profession, that two-thirds of the medicine sold in our drug stores is utterly worthless: without some system of inspection, our city will become the vortex for drugs which have been rejected in other markets. The merest culler and vender of simples is permitted to keep and sell the most deadly poisons, and is consequently, at all times, the ready accomplice of any caitiff wretch who may choose to procure them with criminal intent. In a notorious case of trial for homicide, by poisoning, which came before our criminal court a few years since, it was impossible to ascertain from whence the poison had been procured.

caustic properties, and then to give the antidote as soon as it can be obtained. We would recommend the proposed antidote to be kept by the apothecary in papers, containing each,

Finely divided gold,
——————— iron, ȧȧ- ℈ii.
Gum acacia, ʒ ss. M.

These powders should be kept free from dampness, in order to prevent the oxydation of the iron: in case of poisoning with any of the compounds of mercury, one of these powders is to be stirred into a tumbler of water and swallowed; if any of it should be rejected, another powder should be given. If a solution of mercury were swallowed, we could not expect much benefit to arise from the use of gold and iron, in any other state than that of dust. We should not hesitate, however, in case of poisoning with the insoluble compounds of mercury, if the dust could not be obtained, to use these metals in the form of beads, fine chains, or any other shape in which they could be conveniently swallowed, for we believe they would decompose the soluble salt, with as much rapidity at least, as it could be formed in the stomach.

We have made these remarks for the purpose of inviting the attention of others to the subject; it is our intention, however, to renew and perfect the experiments already made.

On the use of Soot in the treatment of Tinea and Herpetic Affections—By Dr. Lablache, *of Bellegarde, (France.)*

[Translated for the Maryland Medical and Surgical Journal from the Encyclographie des Sciences Medicales, May, 1839.]

I have read in one of the last numbers of this Journal, a note of M. Marinus, a Belgian physician, on the use of soot in the treatment of tinea and herpetic affections.

Having myself used for a long time, the preparations of soot in these diseases, with uniform success, I have thought that I should serve the cause of science by giving additional observations, in corroboration of what has already been published on this subject.

The antichlorotic pills of M. Bland* have gained for him more reputation than the use he has made of soot, in various affections. Nevertheless, I am free to declare that soot acts in certain cutaneous diseases, but particularly in tinea, as triumphantly as the pills of this learned physician in chlorosis. What I have now asserted, I am able to substantiate by a large number of cases, but I think it will suffice to report a few, taken at random from my note book.

Case I. D*** Marie, aged seven years, having been for three years affected with tinea favosa, which occupied the whole of the hairy scalp, was subjected during the month of May, 1834, to the following treatment. The hair was directed to be shaved off, the head to be covered with a poultice of flaxseed meal, to facilitate the separation of the scabs. After they were removed, to make use of the following lotion, night and morning.

℞ Soot of wood, 2 handfuls.
Pure water, lbi.
Boil for half an hour.

After each lotion, the patient was directed to cover the part affected, with a layer of the following ointment:

℞ Lard, ʒ iv.
Soot, q. s.

* These pills are formed of a combination of potash and iron. Trans.

Mix carefully and by small quantities, until the lard shall assume a deep brown color, then submit it for twenty-four hours to a slight boiling.* The other remedial measures pursued, were a blister to the arm to keep up suppuration, not only during the whole treatment, but a month afterwards. Calomel, in doses of six grains every eight days, and four glasses of the infusion of heart's ease (Pensèe,) in the course of the day. General baths, tonic regimen, roasted meats, acorn coffee, &c. were also directed.

The treatment was commenced the 1st of May; by the 18th of the same month the cure was completed, and so far from the health of this young girl being affected by so speedy a disappearance of the cutaneous affection, she greatly improved, for she gained flesh, and her complexion, which was before pale and sallow, became remarkably ruddy.

CASE II. P**** Rose, aged six years, had been laboring for two years under tinea favosa. Her mother was on the eve of submitting her to the cruel treatment of the pitch cap, but before doing so, she came to ask my advice, if there was not other means which could be tried of a milder nature. I suggested to her the soot lotion and ointment, and the other means used in the preceding case: the calomel, blister, &c.

The treatment was agreed to, and commenced forthwith, (July 30th, 1834). I saw the child nine days after, (August 8th,)—I was astonished at the remarkable change which the disease had undergone. All that could be observed was some red points scattered over the hairy scalp. As Madam P. lived in the country, about seven leagues from Bellegarde, she was not able to bring her child to me again for fifteen days, (23d August,) when not the slightest trace of the disease was to be found. The child had a relapse at the period of the spring equinox, the following year. The same treatment was pursued and the recovery took place in less than twenty days, without any relapse.

CASE III. Jeanne Delarue, aged seven years, came under treatment June 18th, 1838. The whole hairy scalp was covered with tinea, particularly the temples and the posterior part of the head.

* This is the plan of making these ointments which has been laid down by M. Bland.

She was put under the same treatment as the preceding cases. In less than twenty days no trace of the affection was to be found.

CASE IV. Henrietta Gibelin, aged fourteen. She was much emaciated, complexion of leaden hue, and an expression of suffering. She had been affected with severe tinea favosa since she was four years of age, and was brought to me during August, 1838. Before commencing the use of the soot, I ordered her repeated sulphur baths. On the 18th she commenced the treatment: on the 23d she came under the use of the lotion and ointment of soot, the blister to the arm, four glasses of the infusion of heart's ease every twenty-four hours—calomel, eight grains every eight days, continuation of the sulphureous baths. On the 10th of September, after a treatment of fifteen days, the hairy scalp was completely free of the scaly eruption.

CASE V. Mademoiselle Julia B., aged twenty years, has been affected since infancy with tinea favosa—about five years previously this had disappeared, in consequence of what treatment I am not informed. Since that period, a kind of herpes crustacea appeared, occupying the right cheek and extending as far as the nose, and the commissure of the lips of the same. She had consulted many physicians and tried every thing. She applied to me during May, 1834, and begged that I would cure her as soon as possible, as she was invited to the nuptials of one of her relations, which would take place in a month, and the herpes, which disfigured her horribly, would prevent her being present, which would be a great disappointment. I prescribed the use of alterative ptisans, the application of a blister to the right arm, and the lotion and ointment of soot. I directed her to apply previously, a poultice to the affected surface; to produce a separation of the scabs. From the time she made use of the lotion and ointment, no new scabs were formed. The herpes healed in less than twenty days, leaving, however, a deep red color, which ultimately entirely disappeared.

CASE VI. M. de Tarascon, aged twelve years, of lymphatic temperament, applied to me in May, 1836. The hairy scalp was entirely covered with numerous scabs of tinea favosa. The upper lip and alæ nasi were indurated, and of a reddish brown color. The mucous lining of the nose was excoriated, and secreted a sanious mucous which became changed into thick scabs, thus pre-

venting the passage of air, and exhaling an offensive odor. M. had, when younger, the cervical glands enlarged, and had been for two years affected with the disease for which he consulted me. I established a permanent blister on one of his arms, and directed him to cover the parts of the hairy scalp affected, with the ointment of soot, and to use lotions of the same at each dressing. In addition, I advised him to bathe with the same decoction the nose and the upper lip, and to draw up the fluid occasionally into the nose, so as to bring it into contact with the portions of the affected membrane. These local baths to be repeated three or four times, daily. I advised also, the artificial baths of Bareges; the carrot juice, with the addition of the syrup of Portal; the acorn coffee, and I had also recommended sea bathing. In about a month, the young gentleman was so relieved from a disgusting disease, that his parents believed that they could, contrary to my advice, dispense with the sea bathing which I supposed would have ensured his cure, which was, however, as prompt as unexpected.

Case VII. M. de V***, aged forty-five, of a peculiarly nervous temperament, was subject to a herpetic eruption of the scrotum, which appeared annually in the spring, and disappeared at the beginning of winter. In 1835, the eruption appeared as usual, but there came on, at the same time, an intolerable pruritus around the anus. This was so violent as to greatly derange his whole nervous system. He sought my aid more for the pruritus than the herpetic affection. He had already used various means that had been prescribed for him, but without success. I ordered for him the alkaline lotions of the sub-carbonate of potash, recommended by M. Trouseau in pruritus of the external parts of generation in females. I tried also sulphur washes and baths, the ointments of belladonna and hyosciamus. These different means produced only temporary relief; finally, under the supposition that the pruritus might be sympathetic of the herpetic affection, I prescribed, independently of general means the juice of depurative herbs, &c. the soot lotion and ointment to the affected part. The eruption yielded very soon, but the pruritus resisted some time longer, but ultimately yielded to the application of the soot ointment.

The reader will observe, in perusing the cases that I have just related, that I employed, besides the soot, various other means, as

blisters, purgatives; and that I have insisted upon their use a much longer time, in proportion to the longer standing of the cutaneous affection.

My object in doing so is easily understood: it is to prevent by these means metastases, which might prove fatal; for we know that many serious diseases of the head and chest are very often the deplorable consequence of too sudden a suppression of an herpetic eruption. "The primitive tinea, (says Pierre Frank,*) demands no other treatment than topical remedies. But when the disease is of long standing, it will be safer to establish a drain; for example, a blister to the arm or nape of the neck, an issue, and it is also very beneficial to purge the patient from time to time."

Authors not less weighty, have given the same advice, and my experience has taught me how imprudent it would be not to conform to the same practice.

* Practice of Medicine, translated by Gondareau, Book II, p. 533

THE "IMMOVABLE APPARATUS,"

Used in the treatment of Fractured Extremities—By Alex'r F. Dulin, *M.D., of Baltimore.*

It is rather remarkable, that the plan of treating fractures by the "Immovable Apparatus" should not, till recently, have been introduced into general practice in Europe and America; as it has long been used, with several modifications, both in Asia and the northern part of Africa; and particularly as, at first view, its apparent superiority to the ordinary mode, in the treatment of many cases of fracture, recommends it to the favorable consideration of the practitioner. Although the same principle had been applied by some of the European surgeons, in treating fractures of the extremities, yet it remained for M. Suetin, of Brussels, and M. Velpeau, of Paris, to introduce it to the notice of the profession at large. Since its recommendation by these gentlemen, it has been employed in numerous cases; and the testimony in its support has been rapidly augmenting. To add to the evidence already existing of its value, the following two cases have been reported.

Case First. *Fracture of both bones of the leg—application of the "Appareil Immobile" the second day after the accident—cure without deformity.*—John Patterson, æt. 19 years, apprentice to an iron founder, Lexington street, and of temperate habits, May 13th, 1839, received a fracture of the tibia and fibula at their lower third, by the falling across his leg, from the height of three feet, an iron shaft weighing sixteen hundred weight. Owing to the tumefaction which speedily ensued, his limb was dressed temporarily with the bandage of Scultetus, and placed in the ordinary wooden splints; and evaporating lotions were directed to be used. In twenty-four hours the swelling had so far subsided, that the immovable apparatus was applied in the following mode.

A roller was smoothly applied from the toes to the knee, old fine linen being interposed where there was a probability of excoriation, and in the inequalities on each side of the tendo achillis. This bandage was covered with starch, boiled to a thick consistence. A second was applied, from the knee to the toes, which also was coated with starch. Then four pieces of thick paste

board, (binder's board is preferable,) moistened with water until soft, and covered with starch, extending from below the knee nearly to the sole of the foot, the front piece reaching only to the instep, were applied before, behind, and on each side of the limb; and covered with a third roller extending from the toes to the knee. This in turn was coated with starch, and the whole covered with a fourth roller, which was secured by a pin or two, at the end. The limb was now confined between shingle splints and supported on a third, and with the foot kept properly sustained for two days; at the expiration of which time, the dressings having become perfectly dry and hard, the splints were removed.

The patient had some fever for three or four days, during which time he complained occasionally of slight pulsative pain in the limb, particularly when in a pending position. He remained in bed, perfectly able, after the removal of the splints, to move about and place himself in any position, without assistance. After the fifth day, he walked about the room, with help, and on the eleventh day from the receipt of the injury, he walked abroad, with the aid of crutches and a stirrup to support his foot. In four weeks he could bear his weight, without inconvenience, upon the limb; and in a little less than six weeks the dressings were removed, leaving his leg firm and without the slightest deformity.

After the second week of the injury, he was not confined to the house, but exercised freely in the open air, and enjoyed uninterrupted good health.

CASE SECOND. *Fracture of the tibia—application of the "Immovable Apparatus" immediately after the receipt of the injury; cure without deformity.*—B. F. W., son of a gentleman in Mulberry street, æt. 8 years, received, July 12th, 1839, a transverse fracture of the tibia four inches above the ankle, while lying upon a sand heap, by his companion jumping from a height of six or seven feet upon his leg. He was taken home immediately; and I saw him a half hour after the occurrence of the accident. No tumefaction had taken place. The immovable apparatus was at once applied, in the same manner as described in the preceding case, and the limb was kept confined within the ordinary wooden splints until the dressings were dry, when the splints were removed.

His desire to be in motion was so great, that on the fourth day after the accident, he left his bed and hopped across the chamber.

As he complained but little of pain or uneasiness in the limb, and was without febrile excitement, I ordered a pair of crutches for him, and a strap, passing around his neck and under his foot, to elevate it slightly from the floor and give it support. After a trial with his crutches, not being able to use them very adroitly, he threw them aside, together with the strap for supporting his foot; and in less than ten days was limping about the house and yard, treading lightly upon the injured limb. In less than three weeks he ventured to bear his whole weight upon the leg, which he found able to sustain him. From this period, he continued to walk upon the fractured leg without fear. The fourth week, the dressings became somewhat loosened, from the shrinking of his muscles, and I applied an additional bandage firmly over the whole. At the expiration of five weeks, the apparatus was taken off, and I seriously apprehended there would be deformity, produced by his continual use of the limb: but was pleased to find a perfect cure, with the most exact coaptation of the fractured surfaces. He made but little complaint of pain, after the third or fourth day; and, indeed, his mother thought that the principal part of his profession of suffering was feigned, as in the absence of the physician he only complained of the confinement to which he was necessarily subjected, and some uneasiness in the limb from the tightness of the dressings.

The advantages resulting from this mode of treating fractures of the leg especially, are too obvious to all who have employed the various plans, to require any elaborate disquisition. It is scarcely necessary to reiterate the arguments in its favor, which have been employed by its advocates. It may, however, be well to enumerate a few of its advantages, in comparison with the ordinary mode. The patient is able to move his leg about in bed, and assume any position he may choose, without help. He can also rise without difficulty and attend to the demands of nature. His digestive and other functions are not impaired from confinement to the bed for many weeks. He is not dispirited in mind and greatly fatigued in body, from being obliged to preserve a fixed position for a long time. In hospital practice, it promises to be of great utility, by lessening the liability to sloughing of the sacrum from protracted pressure, consequent upon long confinement on the back. It is of infinite value to tradesmen, artisans, and others, in enabling them, a few

days after the occurrence of the accident, to superintend their affairs, thereby often saving a great amount of time. The apparatus is simple and easy of application, and may be found in any house.

It would far transcend the intention of this article, and extend it beyond its contemplated length, to discuss all the objections which have been urged against this apparatus. There is one, however, and by far the greatest which has been alleged, that requires a brief notice, before I close. It has been maintained that the early application of the dressing, before a coming tumefaction, will have a strangulating effect and may produce gangrene. Experience has proved, that if the bandage be put on with an uniform compression throughout the whole limb, it opposes tumefaction and does not interrupt the circulation. The arterial blood is prevented from entering the compressed limb, and the venous blood, by the same pressure, is forced out. But granting that, by any possibility, the circulation should become arrested, the toes are exposed, and there are other symptoms, with which every surgeon is familiar, that clearly indicate the most remote tendency to gangrene, when the apparatus should be removed, and such other means employed as may be proper.

It would not be advisable to apply the apparatus immediately, when there was much swelling, but wait until it was dissipated; as the dressings would be left too loose to afford the necessary support to the limb, and because there would be difficulty in "determining upon the exactitude of coaptation" of the fractured surfaces.

Suffice it to say, in conclusion, that hitherto the various objections adduced against it, have not, from experience, been found valid.

October 11th, 1839.

REMINISCENCES OF OLDEN TIMES.

[Extract from a MSS. Introductory Lecture of Professor *********.]

"I PROPOSE to give a brief sketch of the great teachers of the Pennsylvania school, as they were in the beginning of this century. Not biographical memoranda; not moral views of these fathers of American medicine; but rapid delineations of their style of lecturing; of their mode of communicating instruction. I have looked at them as models for lecturers, and shall endeavor to imitate, however remotely, what may be subservient to your purposes.

"When I entered the school at Philadelphia, the veteran Professor Shippen was just bringing to a close, his long and useful career. He laid, beyond doubt, the foundations of anatomy in this country. His character as a lecturer could not be judged of, as late as 1805. He was an exceedingly popular and amusing lecturer; full of anecdote; never hesitating to make the class the subject of his humor, which was always so pleasant as to be invited by the students. I saw him resign his professorship, and introduce the great Wistar to the chair. I heard him compare the school as he found it, with the school as he left it. I listened to his exultation, as he expressed it, on living to see the then character of American medicine. Nor have twenty-five years weakened the impression made by this venerable man, as he stood, bent with age, tottering with infirmity, faultering with grief in uttering his final adieu to his class, his colleagues, and to the medical profession. The flame of life was then flickering in the socket, and in the ensuing spring was extinguished by his death.

Dr. Rush was, in some respects, unrivalled in his style of lecturing. He lectured to disadvantage, because he sat, and read entirely, and his lectures were too long. I have seen him agitated by a cramped position, for the want of that freedom and gesture that spontaneously attend a lecturer who stands. Rush never was at a loss for a pointed, happy illustration. All literature was tributary to his medical teaching. He had another great advantage, in the simplicity of his doctrines. His premises were few and obvious; his deductions sweeping. In war, Rush would not

only have been a hero himself, but would have roused even a coward to courage and action. Perfectly enthusiastic in the conviction of the truth of his doctrines, he was confident they would control medicine and conquer disease. While Boerhave and Cullen modestly admitted the difficulties of their systems, Rush always asserted that his would cover the whole ground of pathology. Hence the popularity of the teacher, and the number and zeal of his disciples. Yet in a quarter of a century his doctrines have given place to others, and are, as a system, now almost forgotten.

"There was another arrangement unfavorable to Dr. Rush's usefulness. He lectured so copiously on physiology and metaphysics, that his practical course was too short and crowded. But, withal, who can forget his animated, energetic manner; the boldness of his principles; the vigor of his style; how inexhaustible the fund of medical authority and incident; and how he decorated his discourses with the flowers of literary contribution.

"The great difference between Wistar and Rush, as lecturers, arose from various and obvious causes. It was the purpose of Rush to disseminate in this new world, a new medical doctrine. It was the object of Wistar to take the master piece of God's creation, and exhibit its beautiful structure to an admiring class. It was in place with Rush to give the sparkling of illustration, and the vivacity of anecdote, to relieve the tedium of a course of written lectures, on points principally speculative. Such playfulness illy comported with the almost sepulchral operations of the anatomical table. The education and associations of Rush, his partiality for the boldest declaimer and dogmatist of modern medicine, with his adoption of Brown's doctrine, led him to a confident manner and bold style, a near approach to the dogmatic. But all these were foreign to Wistar's education among the Friends, and to his pursuits in developing the hidden mysteries of animated organization. Yet for purity of style, fluent diction, irresistible persuasiveness of manner; for modesty in assuming, and ability in sustaining opinions, on mooted questions in his branch, Wistar was more admired than any of his colleagues or successors. He combined all the requisites for an eloquent lecturer—a clear conception, ready and beautiful language, perspicuous and precise expression. These flowed from a mind naturally gifted, elegantly

cultivated, conversant with ancient, and many modern languages. Students were impatient to enter, and reluctant to leave his room.

"Dr. Physick's style of lecturing was and is peculiar. He was almost aphoristic; imitating the closeness of John Hunter's style, without its obscurity. He tells you the truth, the whole truth, and nothing but the truth. If an idea could be expressed in words of one syllable, he never used more than the monosyllables. He seems to render misapprehension impossible. Perfect master of every surgical subject, he felt independent of rhetorical ornament. His sole purpose was to make his pupils thoroughly comprehend him. He preserves the most imperturable gravity from the beginning to the end of his course. I heard him tell but two anecdotes, and then the students were so much accustomed to look at him with awe, that they seemed at a loss whether they were to enjoy the story. Yet he taught surgery most ably. He taught as well as any man living. He is the father of American surgery. He now lives, and long may he live to enjoy the honors of unrivalled eminence, and the universal respect of the medical profession.*

"Barton was one of the most accomplished physicians of his day, and in every respect a man of great refinement of mind and manner. His address and intercourse with students were truly fascinating. In the philosophy of natural history, he was a master. And as a teacher of this, of materia medica, and botany, was universally admired. Keen in criticism, classical in style, graceful in elocution, he was a model for the refined professor and lecturer. He differed toto cœlo from Rush, in medical doctrine. And this was a great advantage to the class. For when yielding to the sweeping principles of Rush, I have been, and doubtless others were, happily arrested in enthusiasm by the fine philosophy of Barton's views.

"Barton was appointed to succeed Rush in the chair of medicine, but fell a victim to gout, to which he had been a martyr for many years before he entered on his duties.

"Professor Woodhouse was a plain, unpretending man, though a learned chemist, and an accurate experimenter, and bold enough

* Dr. Physick is since dead. He closed his long and useful life in Philadelphia, December, 1837. For an interesting biography, by a worthy son-in-law, Dr. Randolph, himself rapidly taking rank as one of the first American surgeons, see American Journal of Medical Sciences, No. xlvii. May, 1839.

too. Little can be said of his style of lecturing. He did not attend to its effect; and he did himself great injustice thereby, and lost much of his influence over his pupils, by neglecting the manner of communicating instruction.

"These brief allusions to the lectures of my early days has revived feelings of respect and gratitude for those whose instructions I attended for years. With me these feelings are very sacred. It is a feature in our moral constitution, that as we advance in years, we dwell with increasing interest on the early scenes and incidents of life. Collegiate associations are proverbially lasting; and grateful remembrance of those who guided our education, especially of those whose instructions introduced us to professional life, is peculiarly natural, for they are better recollected. * * * * * * * * * * *

"While these illustrious men were teaching medicine in the University of Pennsylvania, a number of private lecturers were then preparing themselves for higher spheres. Many of these are now advanced to professorships. These private lecturers are important *collaborateurs* in medical education. They are usually, talented, ambitious young men. They see that it is impossible for a professor, during the short period of four months, to display all the topics in his branch, and here they are useful adjuvants. They recapitulate the lectures; they repeat the demonstrations; they often touch doctrines opposite to those of the schools. They associate familiarly with the students, put them on the *qui vive* of improvement. They keep the young employed, and withdrawn from too habitual indulgence in pleasure.

"In all these respects, these private teachers are worthy of encouragement and regard. Above all, they are using honorable means to establish reputation; and preparing themselves to fill stations from time to time opening in colleges. A wise and liberal policy will always countenance them. To oppress them is a despotism as fatal to science, as it ought to be to those who presume to exercise it. In these days of enlightened liberality, an attempt to stint the development of intellectual action, or to cramp the aspirings of laudable ambition, will recoil.

"A college, well sustained by the talents of its professors, is sufficiently protected by its legal enactments. These private lecture rooms are the preparatory schools of professors. They fortify

the colleges when they deserve support; they injure them only when and where they are vulnerable, and require improvement."

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NOTE. The MSS. of the Introductory Lecture from which this extract was made, happened to be in the possession of one of the editors of this Journal. It is published without being able to obtain the consent of the talented author, who is at present in a distant part of this country, but the extract gives so very graphic a description of the fathers of medicine in this country, that we feel well assured that we shall receive the thanks of the medical profession, for laying it before them. We should be glad to receive similar accounts of the personal and professional character of those men, who gave medicine its impulse in the United States; and we hope to rank the author of this most interesting extract, among the regular contributors for this Journal.

Cases of Carcinoma, in which the chief circulation of the tumor was arrested by an operation—By Professor Richard Wilmot Hall, *of Baltimore.*

May, 1826, W. R., aged twenty-two, of robust frame, of temperate habits, and great moral firmness, was admitted into the Baltimore Infirmary, with a carcinomatous tumor of about twelve lines in diameter, in the substance of the left cheek, below the parotid duct. It protruded into the mouth, and discharged a fetid ichor. The skin of the cheek over the tumor soon became discolored; the glands about the neck and jaw were not apparently diseased. It was decided, in consultation, that the tumor should be extirpated, and the actual cautery applied to the margins of the wound: should these not succeed in arresting the progress of the disease, with the aid of iodine and other alteratives, internally; then the common carotid on that side should be tied, to cut off the chief circulation of the tumor, with the hope of salutary results. Having introduced a probe into the parotid duct, in order more accurately to designate its course, and thus to leave it inviolate by the knife, a free incision was made, from the angle of the mouth above the tumor towards the ear; and by a second careful incision below, the diseased parts appeared to have been completely removed. The cautery was applied and the requisite dressing—the wound readily healed. The patient was put on iodine, arsenic, &c. &c. increasing the dose according to the tolerance of the system. After a few weeks, a new carcinomatous growth appeared, protruding the mucus lining of the mouth at the posterior angle of the cicatrix. As decided in consultation, I proceeded to tie the common carotid at the point usually selected, using a double ligature, and dividing the artery between the ligatures. The patient felt but little pain during the operation, and on the following day was seen promenading the ward: asking for food, and saying that he had a good appetite and the power of mastication. The ligatures came away about the fourteenth day. Still the tumor continued to increase, and gradually destroyed him. Here then, the tying of the common carotid, and the temporary interruption of the chief circu-

lation, made no impression on the character or progress of a carcinomatous tumor.

TREATMENT OF NŒVI.

Where these vascular, connate, tumors in children, have been permitted to increase to such a size, (or where they are from birth so large,) as not to allow the specific action of the vaccine virus when introduced into them, to obliterate their vessels; I have successfully adopted the plan of carrying through their base, a long straight needle, of moderate thickness, armed with a thread. The needle is then cut off, and the ends of the thread are tied down moderately, near to the surface of the nœvus. The needle, thus armed, is again passed parallel to the first thread, at the distance say of a *line*. Thus introducing as many parallel threads as the size of the tumor may require, and securing them as the first, to prevent them from being drawn out by accident. Other threads, at similar distances, are now introduced at right angles to the first, and secured in like manner. The base of the nœvus is thus "*darned*," to use a domestic term. Adhesive plaster may be used on the face, or a soft compress to protect the part operated on: pressure is to be avoided as mischievous. Moderate inflammation and effusion of lymph, or suppuration, will follow, and the anastomosing vessels of the tumor become obliterated, without injuring the delicate skin which covers it. The threads are withdrawn when the *desired* action has been produced. Thus we avoid the unsightly scars which extirpation leaves on the face and neck: and thus we elude the dangerous and excessive hemorrhage which surgeons well know, often follows the excision of these spongy or cellular tumors.

August 15th, 1829, Mrs. B——k, a married lady of 30 years of age, consulted me for a tumefaction of the lachrymal sac, with entire obstruction of the nasal duct. This condition of the parts was of several months duration. By pressure, the fluid mucus could be forced out of the puncta lacrymalia. The delicate and flexible silver probes were introduced into the puncta; Anel's syringe was then used with a view of thus removing the obstruction, by a mild injection into the sac, but in vain. The operation

being decided on, an incision was made into the sac by a delicate knife, in the usual mode, and a silver style, of polished surface and uniform dimensions, about a line in thickness, with a flat head placed obliquely to its body, was introduced—the head being left exterior to the lips of the wound. On the following day I found that the head of the style had descended into the sac, and that the incision had nearly closed by the first intention. The introduction of a delicate probe indicated its position. I then applied a small piece of court plaster to approximate and cover the incision, and to complete the union of the lips of the wound: with a belief that the case would do well with the style *persistent.* Every expectation was fully realized. The incision was soon closed, and the tears flowed easily and regularly by the sides of the style. A close examination of the case several years after the operation, proves its entire success. Since 1829, I have always adopted this plan of depressing the head of the style into the sac, and the healing of the wound by the first intention, both in private and Infirmary practice. It may be requisite, from some peculiar diathesis of the patient, to remove the style, as where strumous disease of the bones supervenes. With this view, I direct the head of the style to be perforated in the direction of its axis about one-fourth of an inch by a female screw, into which, for the purpose of elevating and removing it, (an incision being made,) a small conical male screw may readily be inserted: this is made of steel and attached to a suitable handle. At the above period I was not aware that Dupuytren, of Paris, had recently introduced there, the plan of closing the wound over the style and leaving it in the nasal duct. It is obvious that the material of the style should be gold, silver, or platina.

October 14th, 1839.

REVIEWS.

An Exposition of the Signs and Symptoms of Pregnancy, the Period of Human Gestation, and the Signs of Delivery. By W. F. Montgomery, A.M., M.D., M.R.I.A., Vice-President, and Professor of Midwifery in the King and Queen's College of Physicians, in Ireland. *Philadelphia,* 1839—8vo. pp. 220.

This valuable work on several important and difficult questions in physiology and forensic medicine, was published in London, in 1837, and has now made its appearance in this country, in the Nos. for May and June of the American Medical Library.

Dr. Montgomery is the author of the articles in the Cyclopædia of Practical Medicine, on the Signs of Pregnancy and Delivery, and on the Succession of Inheritance. From these papers, the present work has been chiefly derived. But so much has it been improved by the author's more extended inquiries and matured reflections, and so amplified by additional facts and illustrations gathered from reading and observation, that it possesses no inconsiderable claims to the honor of originality. No one who compares it with the essays in the Cyclopædia, will regret its appearance, or be inclined to view it as a superfluous addition to the former treasures of our professional literature. In this country, its sphere of utility will be greatly increased in consequence of its adoption for publication in the American Medical Library, as from the merited popularity of that excellent publication, Dr. Montgomery's production will undoubtedly, in its new form, come into the hands of many readers who are not so fortunate as to possess the more ponderous and costly volumes of the Cyclopædia.

The work commences with an interesting chapter on the state of the female system during gestation, in which are furnished

many suggestions respecting the physical and moral changes induced by pregnancy, which are eminently worthy of attention.

As illustrative of the supposed power of the mother's mind to affect the organization of the fœtus,—a power in which Dr. Montgomery is a believer, though of course rejecting the farrago of old wives' tales by which the subject is beset,—a case is related, which is as strong as any tolerably well attested one that we remember to have read, and is the more valuable as having occurred under the author's own observation.

"A lady, pregnant for the first time, to whom I recommended frequent exercise in the open air, declined going out as often as was thought necessary, assigning as her reason, that she was afraid of seeing a man whose appearance had greatly shocked and disgusted her; he used to crawl along the flag-way on his hands and knees, with his feet turned up behind him, which latter were malformed and imperfect, appearing as if they had been cut off at the instep, and he exhibited them thus, and uncovered, in order to excite commiseration. I afterwards attended this lady in her lying-in, and her child, which was born a month before its time, and lived but a few minutes, although in every other respect perfect, had the feet mal-formed and defective, precisely in the same way as those of the cripple who had alarmed her, and whom I had often seen." p. 11.

This is certainly a remarkable case, and almost equal to the one mentioned by Father Malebranche, of a child that was born with all its bones fractured, in consequence of its mother having, a short time before her accouchement, seen a criminal executed on the wheel. The question upon which it appears to bear, is not to be decided in the negative by the "*wise-saws*" of those who refuse to believe what they cannot explain; and nothing can justify us in giving our suffrage on the other side, but an array of "*modern instances,*" numerous, carefully observed, perfectly authenticated, and inexplicable on any other principle. We do not exactly perceive the force of Dr. Montgomery's remark, that "if an influence exerted on the mother's mind can destroy the life of the fœtus, it is surely not unreasonable to admit that it may have the power of modifying organization;" nor do we much regard the arguments and speculations of the advocates of either opinion. The point at issue is to be established by observation alone, by the *naturæ judicia,* not the *opinionum commenta;* and we have scarcely, as

yet, obtained a sufficient accumulation of facts to constitute the basis of any positive decision.

In entering upon the more immediate subject of the first part of his work, the author prefaces his observations on the signs of pregnancy, by pointing out the difficulty, especially in the early months, of ascertaining the existence of that state, and the necessity of making such investigations with accuracy and circumspection. Upon the issue of the inquiry may depend, in various instances, the correct treatment of disease, the rights of legitimacy, the life and reputation of individuals, and the honor and happiness of families. In forming conclusions which are to draw after them such momentous consequences, there are but few physicians so skilful or so reckless as not to have occasionally felt, whether their opinion be required in private life or before a judicial tribunal, that they are placed in a situation of embarrassment, perplexity, and painful responsibility. The individual under examination is often unable, and often exceedingly unwilling, to afford us any assistance in our researches. "The pertinacity and apparent innocence," says Dr. Montgomery, "with which pregnancy is denied, under certain circumstances, would be quite incredible, and almost certainly mislead us, were we not taught scepticism from experience."

Of the correctness of this remark most medical men have had apposite illustrations. Only a few months since, we were called in the night to visit an unmarried female, less than fifteen years of age, who was said to be extremely ill. We found her in an advanced stage of labor, and yet earnestly engaged, during the intervals of her pains, in making to her mother the most solemn asseverations of her virgin purity, in which, with a courage worthy of a better cause, she persevered up to the very moment when the birth of her infant threw the question in dispute beyond the control of either logic or rhetoric.

After mentioning the attempts to conceal pregnancy where it exists, Dr. Montgomery refers to the less common instances, in which equal zeal and ingenuity are exerted to feign it where it does not. This may be done for the purpose of compelling marriage, of extorting money, of delaying the succession of property, or of deferring the execution of capital punishment. Again, there is another class of cases in which married females, so situated as

to look upon pregnancy as the greatest of blessings, are led into error with regard to their condition, by the vehemency of their wishes; and the sanguinary Queen of England is not the only wife who has, in this matter, "listened with credulity to the whispers of fancy, pursued with eagerness the phantoms of hope, and expected that age would perform the promises of youth."

The difficulty of making a correct diagnosis is not, however, confined to cases in which the female is deceived, or is attempting to practice imposition: it occurs in many other instances, and has occasionally misled very able and eminent physicians. Of this fact, Dr. Montgomery mentions two sufficient examples. The first is the case of the cæsarean section performed at Berlin, in 1828, by a celebrated surgeon, and in the presence of several obstetric professors, in the subject of which not only no fœtus was found, but no tumor or enlargement of any viscus. The second was a case in which the distinguished Baudalocque declared, only two or three weeks before his patient gave birth to a large, vigorous, and healthy infant, that all the symptoms of pregnancy which she presented, were occasioned by an enormous scirrhus of the uterus.

In our inquiries into a subject thus important, and thus invested by sources of error both natural and factitious, we are bound by the requirements of humanity and of prudence, by regard at once to others and to ourselves, to endeavor to obtain the aid of all the light which the present condition of science can afford.

The signs and symptoms which Dr. Montgomery enumerates as indicative of pregnancy, are as follow: Suppression of the Menses; Nausea and Vomiting; Salivation; Enlargement and Sensibility of the Mammæ; Changes of the Areola; the Secretion of Milk; Quickening and Motions of the Fœtus; Enlargement of the Abdomen and State of the Umbilicus; State of the Os and Cervix Uteri; Size of the Uterus, its Contents, Situation and Consistence. Evidence, he farther states, is to be sought from the operation of *Ballottement* or Repercussion; from Auscultation; from the examination of substances expelled from the uterus, as immature Ova, Moles, Hydatids, and the membrane formed in dysmenorrhœa and in other conditions of uterine derangement; also, from Idiosyncrasies, which manifest themselves only in particular individuals; from Beccaria's test, or the acute pulsating pain in the occipital region; and from the state of the blood, of the urine, and of the pulse.

To the discussion of these various circumstances, Dr. Montgomery has brought so large an amount of information, and so philosophic a spirit, that but little remains to be added to his investigations, except what neither ancient nor modern inquirers are able to supply. It is not our purpose to follow him through the details of his work: we shall attempt only a brief and desultory survey of the most interesting of his statements, and the most important of his opinions.

The Suppression of the Menses, the sign by which females commonly judge for themselves whether they are in a state of pregnancy, affords in general a sufficiently accurate indication, but is also frequently deceptive. Some women are at all times, and while enjoying the best health, extremely irregular in the return of their menstrual periods;* many become so at the epoch which is called the change of life; in others the secretion may be prevented by disease, by exposure to cold, and by mental emotions. Again, the escape of the secreted fluid is sometimes precluded by the condition of the organs, as by an adventitious change of structure, or by an imperforate hymen.

"Another form of suppression," says Dr. Montgomery, "which is particularly likely to deceive us, is that which not unfrequently occurs in young and newly married females, for two or three periods, while at the same time, as is very usual, the breasts increase in size and become sensitive, and the patient, readily believing such testimony of what she wishes, entertains no doubt whatever as to her state, until, after the lapse of a couple of months, an appearance takes place, which, although in every respect the same as the patient's ordinary menstruation, and without any of the symptoms of miscarriage, is at once set down as the commencement of that accident, and we are called on to prescribe."

From suppression we cannot, therefore, pronounce the existence of pregnancy; nor, on the other hand, can we deny the presence of that state from the continued occurrence of the catamenia. The appearance of this discharge after the commencement of gestation, though disbelieved by Denman, Burns, and Hamilton, is considered by Dr. Montgomery as fully proved. He has met with several cases in which menstruation occurred *once* after conception, and is inclined to admit, on the testimony of eminent authorities, that it has been known to appear regularly through the whole time of gestation, and in some instances reported by Daventer, Bauda-

* See Heberden's Comment. c. 62.

locque, and Dewees, during that period alone. Mauriceau mentions a woman that was hanged in Paris, in 1666, and who was found, upon dissection, to be four months advanced in pregnancy, the persons who, by the order of the judge, had examined her before execution and reported that she was not pregnant, having been deceived by the fact of her continuing to menstruate.

That the menses are not always suppressed by pregnancy, was well known to the ancients, some of whom, as we learn from Pliny, considered their continuance a presage of evil to the fœtus,*—an apprehension not confirmed by the result of modern observations.†

Dr. Montgomery's safe and comprehensive conclusion respecting this subject is, that "as a general rule, to which there will be found but few exceptions, when suppression of the menstrual discharge takes place in a healthy woman, previously regular in its returns, who has not sustained any accident, and continuing for some months is not attended with any impairment of health, it ought to be regarded as a circumstance strongly indicative of pregnancy, especially if accompanied by other ordinary symptoms of that state; and, on the other hand, considering that menstruation continues, in only very few instances, after conception, the regular appearance of that discharge ought certainly to be esteemed a forcible presumption against the existence of pregnancy, ever remembering, however, that the case in question may be one of the rare exceptions."

Nausea and Vomiting very generally occur, and sometimes almost immediately after conception. "I had once," says Dr. Montgomery, "a lady under my care, in whom there was reason to believe that they began the day after conception, and the date of her labor corresponded to such a belief. More recently I attended a patient who was married on Monday, and began to be squeamish on Saturday; her delivery took place within nine months." Van Swieten relates a case in which these symptoms made their incursion the morning after marriage.‡ Most commonly, however, they set in between the second and third weeks

* Quando hœc est generando homini materia, cum gravidis fluxit invalidi aut non vitales partus eduntur, aut saniosi, ut autor est Nigidius. Hist. Nat. 7, 15. See also to the same effect Aristotle, Hist. de Animalib. L. 7, c. 2, § 25.

† See Francis Denman, note p. 231.

‡ Commentaries, § 1296.

after conception; sometimes not till several months after, and occasionally not at all.

As irritability of the stomach may arise from other causes than pregnancy, and when excited by that condition may, under certain circumstances, be concealed or denied, we should be slow to draw any inference from its presence, or from its real or apparent absence.

The chapter on *Mammary Sympathies* is highly interesting and valuable, and the remarks on the *Areola* are perhaps the very best on this important sign that have as yet been presented to the profession. Writers on this latter subject,—even such writers as Gooch and Blundell,—have generally directed their attention exclusively to the alteration of color in the nipple and its surrounding disk, which Dr. Montgomery considers the most uncertain, and least instructive, of all the changes that occur in those parts. The well known description of these changes given by Rœderer, he pronounces by far the most accurate that he has met with, and the circumstances which it enumerates, together with some additional ones stated by himself, he thinks of the utmost value as evidences of pregnancy, since, according to his experience, they can be produced by no other condition.

"A case," he says, "which occurred while I was lecturing on this subject, affords a very satisfactory illustration of the value to be attached to this evidence of pregnancy. A young woman came a considerable distance from the country, to be admitted into Sir P. Dun's Hospital, the medical men in the country not having succeeded in affording her relief, or restoring her health. A very prominent symptom of complaint was amenorrhœa of four months' duration, accompanied by uterine pain, want of appetite, &c. A very intelligent pupil suggested to me after lecture, that there was then in the house an unmarried patient, laboring only under amenorrhœa, whose breasts presented the areola with all the characters I had described. I immediately visited her, and on examining her breasts, pronounced at once that there was the true areola of pregnancy; an announcement which she heard with the most fiery indignation, declaring that she would submit to any thing rather than lie under so calumnious an aspersion, and even consenting to permit an examination, per vaginam, when proposed to her as the only thing which could save her character. On making the examination I was able to feel the fœtus distinctly by *ballottement*. She afterwards acknowledged that she had been 'walking by moonlight with a young man who had a great regard for her.' " p. 44.

At what period the changes in the areola can be first observed

the author is unable to decide, but he has "fully recognised them at the end of the second month, at which time the alteration in color is by no means the circumstance most observable, but the puffy turgescence, (though as yet slight,) not alone of the nipple, but of the whole of the surrounding disk, and the development of the little glandular follicles, are the objects to which we should principally direct our attention."

Notwithstanding the high value of these signs, they may sometimes, unless we use caution, lead us to an erroneous opinion. The breasts of a woman who has very recently miscarried, may present the same phenomena as those of one who is still pregnant; and in nurses the changed appearance of the areola is prolonged by their occupation, and continues in a state of considerable perfection.

By the term *Quickening*, Dr. Montgomery understands the first sensation experienced by the mother of the life of the child within her womb. Dr. Royston's opinion, derived from Dr. H. S. Jackson, that this sensation is excited by the impregnated uterus starting suddenly out of the pelvis into the abdominal cavity, has always appeared to us to be rational and probably correct. Dr. Montgomery seems disposed to set it aside, on the strength of a remarkable case which he witnessed, in which the motions of the fœtus were distinctly perceptible to the touch, through the abdominal walls, nearly three weeks before the mother's quickening. We will only remark, in reference to this subject, that Dr. Royston's explanation has been adopted by several distinguished recent writers;* that a single anomalous fact is not generally the safest arbiter of a physiological question; and that Dr. Montgomery will probably consider the case which he details of less value, when he reflects that it is not at all more reconcilable with his own hypothesis than with the one which he rejects.

According to an irrational distinction recognised by the English law, the fœtus is held to be inanimate prior to the period of *quickening*. A woman who is condemned under this code to suffer death, has no respite in consequence of being merely pregnant; to obtain a stay of execution, it is necessary that she be pronounced *quick with child;* and by the Ellenborough Act, passed as recently

* Burns, Blundell, Conquest, Beck, Paris and Fonblanque, &c.

as 1803, the intentional procurement of abortion in a woman *not quick with child* is punished by fine, imprisonment, or transportation; while the same offence committed *after quickening* is punishable with death. It is difficult in our ingenious world to fix the limits of absurdity, or to pronounce of any case, that it manifests the utmost possible departure from the principles of common sense. Nothing seems plainer than that every pregnant woman is quick with child, in the strict and proper sense of that expression, from the very moment of conception; and the doctrine which assumes the contrary supposition, and views the fœtus, at any period of its existence, as a mere *pars viscerum matris*, would appear sufficiently beyond the reach of competition. We have lived, however, to see even this refinement eminently improved, and sublimed to a degree of excellence that must be infinitely captivating to the admirers of transcendental philosophy. Dr. Jörg, the Professor of Midwifery in the University of Leipzig, has lately instructed the world that the fœtus, while in the uterus, is neither endowed with a human soul, nor possessed of human attributes, and is to be regarded as only a higher species of intestinal worm!*

The period at which *quickening* occurs is, according to Dr. Montgomery, in the greatest number of cases between the twelfth and sixteenth weeks. The earliest occurrence of it which he has known, was eleven weeks and two days after conception; but it frequently happens much later; and he is in the habit of attending a lady who, in seven successive pregnancies, felt the child for the first time in the sixth month, and once in the seventh. It is very remarkable that this symptom is sometimes unfelt during the whole course of pregnancy; instances of this kind have fallen under the notice of Dr. Montgomery, and are mentioned by many other writers.

That females are frequently deceived with regard to this symptom, and imagine that they are daily feeling the motions of their child, when in reality they are not pregnant, is very well known. We have met with two cases of false conception,—the pseudocyesis inanis of Good,—in the persons of respectable and experienced

* Legal Responsibility of Females during Pregnancy and Parturition. By Dr. I. C. G. Jorg. Leipzig, 1837.

matrons, each of them the mother of several children. In one of these, the common symptoms of pregnancy, extremely well marked, and accompanied by what the female declared without hesitation to be the motions of the fœtus, continued until near the end of the supposed seventh month of gestation, when they gradually subsided and disappeared. In the other, the same symptoms persisted through the regular period of nine months, and terminated in a labor, which we attended, and which resembled the ordinary process in severity of pain, but differed from it in the somewhat material circumstance, that the uterus having nothing in it, had, of course, nothing to expel.*

The chapter on the *enlargement of the abdomen and the state of the umbilicus*, furnishes several instructive examples of the possibility of mistaking for pregnancy, the intumescence occasioned by ascites, by disease of the liver, spleen, or ovarium, by an overgrown omentum, or by the inflated state of the bowels.† The change in the shape arising from pregnancy, becomes obvious to the eye before the end of the third month, but does not always advance with regularity.

"There are two cases," says Dr. Montgomery, "in which the size of the abdomen, during gestation, instead of increasing, may diminish or remain stationary; first, about the second month of healthy pregnancy, when the inflation of the intestines, which very generally occurs at the beginning of that process, subsides, and secondly, when the ovum being blighted, the increased vascular supply is withdrawn and the growth of the uterus arrested."

The changes in the uterus, the state of its os and cervix, its size, its contents, situation, and consistence, together with the various modes of examination—by the hand, the eye, and the ear, are the interesting subjects to which the seventh and eighth chapters are devoted. The progressive changes in the lower portion of the womb are well and minutely stated, and the information to be derived from them, and the mistakes which they may occasion,

* An accurate account of this curious state of the system, is given by Sydenham, Tract. de Hydrope, p. 484. Opera. Lugd. Bat. 1754.

† Of suspicion of pregnancy, excited by enlargement of the liver and other abdominal organs, a recent and illustrious example appears to have been afforded in the case of the injured Lady Flora Hastings. It is probable, however, that in this instance, the slanderous error owed its origin at least as much to the moral maladies of those who entertained it, as to any physical disease of its ill-fated victim.

are properly illustrated. A circumstance which the author thinks very important to be observed, as being a decisive proof of pregnancy, is the prominence of the glandulæ within the os tincæ, which, he says, may in the fourth or fifth month be felt like little elastic smooth vesicles rolling under the point of the finger.

In speaking of those cases of irritability of the sphincter of the vagina, in which an examination cannot be accomplished without subjecting the patient to extreme pain, Dr. Montgomery gives a caution against using the application of Belladonna, the introduction of even a small portion of which he has seen speedily followed by the symptoms of narcotism. To a monition from such a source, much attention would appear to be due; yet the statement upon which it is predicated cannot fail to be deemed extraordinary by those who are aware how frequently, how freely, and with how much apparent benefit the pomade of Belladonna is applied to the os tincæ, both in this country and in Europe. This practice, first recommended by Chaussier, in 1811, in the treatment of puerperal eclampsia,* and since, more generally resorted to for the purpose of effecting dilatation of the mouth of the womb in protracted parturition, could scarcely, it may be presumed, have obtained the confidence of skilful and eminent physicians, were it obnoxious to the grave objection urged against it by our author.

Ballottement or repercussion, Dr. Montgomery declares from experience, may occasionally be successfully performed during the fourth month; but it is not generally satisfactory until that month is completed. In the first three months, the fœtus is too light to be felt in this manner; and in the last three, it is too large and too much confined to be made to float sufficiently freely.

On the use of *Auscultation* the observations are brief and unfavorable. The objections to this mode of exploration in cases of suspected pregnancy are, that it requires great care and nicety on the part of the examiner, and is beset, according to Laennec, with far greater difficulties than are encountered in ascertaining the diseases of the chest; that it cannot be made available during the early and more doubtful period of gestation; that where the fœtus is dead, it can afford us no information; and finally, that the sounds both of the placenta and fœtal heart are occasionally inaudible,

* See Velpeau, des Convulsions chez les femmes, &c. p. 91

even in the case of a living and healthy fœtus. The placentary sounds the author has never succeeded in detecting before the completion of the fourth month, and the pulsations of the heart not until the end of the fifth; and to hear them even at those periods requires great attention, and a practised ear. After admitting the value of auscultation in certain rare cases, Dr. Montgomery expresses the opinion, that "it will seldom be necessary to resort to this method of investigation, if the ordinary modes have been used with sufficient care, and that if we know how to make good use of our hands and eyes we will not often require the assistance of our ears."

The bluish tint of the lining membrane of the vagina, lately stated by Dr. Kluge and M. Jacquemin to be a certain test of pregnancy, Dr. Montgomery's opportunities have scarcely enabled him either to assert or deny. In the few cases of pregnancy which he has examined with reference to this sign, it was present; but he has also found it, during the time of menstruation, in a patient who was not pregnant; and he is inclined to think that, "in cases of pregnancy should the ovum be blighted, and the increased activity of the uterine circulation consequently cease, this color of the vagina would most probably disappear altogether, or become very imperfect."

Having discussed the changes which impregnation effects in the organs of reproduction, and the parts of the system with which they are sympathetically or otherwise connected, the author proceeds to treat of the various *products* arising from a physiological or pathological action of the uterus. The substances which may be expelled from the womb are immature ova, moles, hydatids, and the membrane produced in dysmenorrhœa or other states of uterine derangement. To make a proper discrimination of these various bodies, and to decide whether or not they are the result of sexual intercourse, is frequently a difficult task; and where the party concerned happens to be an unmarried female, it is occasionally a very important one.

An ovum expelled in the first month can scarcely be recognised by any degree of skill. After that period its true character may be ascertained by a careful examination, of the best mode of making which the author gives a useful and satisfactory detail.

The long dispute respecting the nature and cause of *Moles*, like

many debates on higher matters, has been pretty much a contest about a word, the term mole having been applied by various writers to very different substances. In the days of Pliny, they were supposed to be occasioned by the erotic excitement of females without congress with the other sex;* the prevailing opinion at present is, that the true mole, as described by Fernelius—"tumor carnosus non in substantia sed uteri capacitate genitus"—occurs only as the effect of sexual union. The opinion of Dr. Montgomery is rational and humane. The medical jurist, he thinks, "would not be justifiable in pronouncing any such mass expelled from the uterus as proof of pregnancy, except he can detect in it either the fœtus or a part of it, or some other of the component structures of the ovum; and even then, without further proof, 'we must not,' to use the words of Morgagni, 'immediately doubt the woman's chastity, since the placentula might have remained in the uterus formerly, in an abortion that had not been much taken notice of.'"

The origin of *Uterine Hydatids*, like that of moles, has given rise among authors to much conflict of judgment. Dr. Montgomery agrees with those who think that they never occur except after sexual intercourse, having never seen them expelled unless accompanied by a blighted fœtus or some other part of an ovum. He admits, however, that our knowledge is by no means sufficiently precise to justify us in asserting positively, in a case of suspicion, that a woman was pregnant merely because she discharged hydatids from the uterus, and where we have been unable to detect among them any part of an ovum. It is important also to remember that the remnants of an ovum may be retained so long, and expelled so inopportunely, as to excite great suspicion, and lead us, unless we use proper caution, to very unjust conclusions.

"A woman," says Dr. Montgomery, "loses her husband by death or departure, when she is perhaps in the third or fourth month of pregnancy; shortly afterwards she miscarries, and the placenta or some other portion of the ovum is retained, and gives rise to the production of hydatids. This new product may be retained for many months, and being then expelled, might very unjustly excite suspicion against a perfectly chaste person; for although the result of impregnation, in such a case it would obvi-

* Molas gigni putant, ubi mulier non ex mare verum ex semetipsa tantum conceperit; ideo nec animari quia non sit ex duobus; altricemque habere per se vitam illam quæ satis arboribusque contingat. Hist. Nat. L. 10. c. 64.

ously be no proof of a pregnancy occurring subsequently to the absence of the husband."

The membrane expelled from the uterus in dysmenorrhœa, and the extreme pain which accompanies its expulsion, have occasionally given rise to suspicion of pregnancy and abortion. This suspicion is to be prevented or dispelled by a knowledge of the general character of the case, and by a careful examination of the eliminated morbid product, which, according to Dr. Montgomery, will be always found to differ from the decidua vera in sufficiently obvious characteristics.

Among the *accidental circumstances* of gestation are mentioned changes in temper, alterations in the complexion, features and expression of the face, strange appetites and antipathies, pain in the teeth and other situations, and the occurrence of a varicose state of the veins. These phenomena can afford us but little information in first pregnancies, but when any of them has been observed to occur in successive instances in a particular individual, it increases in value, and may sometimes serve as a very useful guide to a correct diagnosis. "I have known many married ladies," says Van Swieten, "who from longing earnestly after some particular meats and drinks, about which they were formerly indifferent, were assured when they were with child, though no other symptom of pregnancy had appeared."*

Beccaria's test, Dr. Montgomery thinks, can scarcely be made available, except under very unusual circumstances; and no satisfactory information can, according to his observation, be derived from the state of the blood, of the urine, or of the pulse.

The chapter upon *pregnancy under extraordinary circumstances* presents a large number of cases, many of them highly useful, and some sufficiently remarkable to gratify the taste of Schenckius, Millingen, or any other collector of the curiosities of medical experience. Among the unusual circumstances, under which pregnancy sometimes occurs, and which may cause its existence to be considered doubtful and improbable, or may prevent it from being even thought of, are the early youth or the advanced age of the female. The most precocious instance of pregnancy known to have occurred in Great Britain is stated to have been afforded by

* Commentaries, § 1293.

a female, who was delivered in the beginning of the twelfth year of her age. In the earliest case recorded as happening in the United States, delivery took place in the eleventh year of life; and the earliest that has fallen under the observation of Dr. Montgomery was that of a young lady, who brought forth twins before she had completed her fifteenth year.

With regard to conception at an advanced period of life, no instance of it has been met with by Dr. Montgomery at an age later than the fifty-fourth year.* The English Court of Chancery, in a case in which an immense property was in dispute, and where the sole question was whether a woman might bear a child at sixty years of age, have lately decided against the possibility of such an event. The assertion, however, of Lord Erskine in his speech on the Banbury Peerage case, that "there is no statute of limitations on the powers and faculties of man," is equally applicable to either sex. Dr. Montgomery remarks, with his customary good sense, that "we should be extremely cautious in pronouncing against pregnancy, merely because the individual may have exceeded, by ten or fifteen years, the period of life after which the generative faculty ordinarily ceases to manifest itself; or because the woman may have lived for many years a married life without conceiving, and then shown symptoms of pregnancy."

Of this latter circumstance two examples are given from Dr. Montgomery's own observation; in one of these, marriage preceded the first pregnancy by nineteen years, and in the other by twenty-four. Another similar case is quoted from Dr. Gooch; but the most remarkable that we remember is one related by Dr. Gordon Smith, of a woman in London, who, at the age of fifty-four produced at one birth two sons and a daughter, though she had been married thirty years, and had never before been pregnant.

On the subject of *spurious pregnancy*, and on the connexion of pregnancy with various diseases, as dropsy, uterine hydatids and moles, uterine and ovarian tumors, extra-uterine fetation, polypus, scirrhus, and prolapsus of the uterus, the author's remarks and illustrative cases are copious and satisfactory, and the doctrines of practice which he inculcates safe and judicious.

In considering the question, "whether a woman may become

* See Aristotle, Hist. de Animalib. L. 5, c. 13, § 133.

pregnant in consequence of intercourse, of the occurrence of which she was not conscious, and so find herself with child without being aware of having incurred the risk," Dr. Montgomery manifests a degree of charity that appears not a little latitudinarian. He believes that such an event might happen during natural sleep, and to establish the probability of this opinion refers to the stronger fact of parturition itself having been accomplished during unbroken slumbers. It is certain that there are cases of this kind on record; and it is certain also that Rabelais has taught us, that "an honest man, and of good judgment, believeth still what is told him, and what he finds written." Yet in spite of the gravity of the record, and the authority of the dictum, we cannot divest ourselves of some heretical doubts. Instances of painless parturition, though certainly extremely common among those fortunate nations commemorated by Montaigne as having escaped the influence of the primal curse,* are we suspect wholly unknown in less favored regions; and Dr. Gooch's case and other cases in which impregnation is alleged to have been effected during sleep, not dependent upon disease or upon the administration of narcotics, though calculated to form an edifying appendix to the memorable and well attested legend of the Seven Holy Sleepers of Ephesus, will, we doubt, when they venture to make their appearance in a book of science, serve but little purpose except to remind us of the truth of the philosophic aphorism, "non omnes dormiunt, qui clausos et conniventes habent oculos."

The suspicion of pregnancy, excited by hair, teeth, and bones being found in the ovaria after death, Dr. Montgomery discredits and rejects, and thinks that these structures are in all probability coeval with the individual in whose body they occur, and produced by the original inclusion of one germ within another. That such is the true explanation of many cases, must be admitted; but it does not account for the fact that the adventitious bodies in question are so much more frequently met with in females than in males, and in the ovaria than in any other part of the system; and it is far from improbable that their origin is in numerous instances to be referred, as Meckel has suggested, to unnatural excitation of the sexual organs, and, in perhaps a still larger number, to blighted and imperfect extra-uterine conceptions.

* L. 1. des Ess. c. 14.

The possibility and the consequences of one ovum being expelled from the uterus, in cases of twin conception, while the other is retained; the necessity of caution in deciding in cases of supposed abortion that such an accident has really taken place; and the effect of an ovum remaining in the uterus after being blighted; constitute the topics of the last and perhaps most important section of this chapter.

The chapter on the subject of *investigation after death,* which forms the conclusion of the first part of the work, is devoted almost exclusively to an account of the structure and appearance of the corpus luteum.

This body, according to Dr. Montgomery, is formed on the occurrence of conception, by the inner coat of the Graafian vesicle becoming intensely vascular, and pouring out between itself and the external coat a considerable quantity of a soft, gelatinous substance of a yellowish red color, which surrounds the ovum on every side, except where it is pressed towards the surface of the ovarium. At this point, in consequence of the vis a tergo caused by the formation of the corpus luteum, together with the aid of absorption, an opening is effected through the four coats surrounding the ovum, and its expulsion from the ovary into the tube is thus accomplished.

This description differs somewhat from the one proceeding from the high authority of Professor Baer, who represents the corpus luteum not as a new body, but as formed by a thickening of the *internal* coat of the vesicle; and another conflicting account has been very recently published by Dr. Lee, who states, on the sanction, however, as it appears of but very few dissections, that the corpus luteum is deposited around the *external* coat of the graafian vesicle.* This subject should be submitted to farther examination.

In form and size the corpus luteum is always more or less oval, its longer axis varying from four to five-eighths of an inch, and its shorter from three to four-eighths. Thus it occupies from a fourth to a half of the whole area of the ovarium, according to the period of gestation at which it is examined.

The exact time, after delivery, of its total disappearance, the author is unable to state: he has found it distinctly visible at the

* Lond. Med. Gaz. June 29, 1839.

end of five months after labor, but never as yet at a more remote period. The vulgar opinion, that it is a permanent structure, and that we may ascertain the exact number of children a woman has borne by the number of corpora lutea in her ovaria, is of course entirely erroneous.

As respects the conclusion to be derived from the detection of a corpus luteum, Dr. Montgomery declares, that his uumerous examinations, continued through nearly ten years, of the bodies of women and of the lower animals have afforded him a perfect conviction of the truth of Haller's two propositions, viz. that "*conception never happens without the production of a corpus luteum,*" and that, "*the corpus luteum is never found in virgin animals, but is the effect of impregnation.*"

The discrepant opinion entertained by certain writers has arisen apparently from entire ignorance of the true nature and appearance of the corpora lutea. Some have mistaken for these bodies the cicatrices on the surface of the ovaria, while others have confounded with them every point or spot of a yellow color which can be detected in the substance of those organs. An English commentator on Beck's Medical Jurisprudence has, for instance, ventured to assert, that he has seen in the ovary of a child not above five years of age, numerous corpora lutea, as distinct *as he ever saw them in the adult impregnated female;* a statement no doubt perfectly true in a restricted sense, notwithstanding the justice of Dr. Montgomery's remark, that "one real corpus luteum as found in the adult female is fully as large as the whole ovary of a child of five years old."

Dr. Montgomery's researches, which may be properly considered as decisive of this interesting question, are worthy of the utmost attention, and are sufficient by themselves to rank him among the improvers of science.

The *Period of Human Gestation*, the subject that next occurs, has been the theme of frequent and copious discussion from at least as remote a date as the days of Herodotus. That historian represents the mother of Demaratus, King of Sparta, as expressing a decided opinion on this question. "Your enemies particularly object to you," says she to her son, "that Ariston, when he first heard of your birth, declared in the presence of many that you could not possibly be his offspring, as the time of ten months was

not yet completed; but he said this from his ignorance of such matters. Some women are delivered at nine, others at seven months; all do not go ten. I was delivered of you at seven; and Ariston himself afterwards confessed that he had uttered those words foolishly."* The irregularity of the duration of pregnancy, thus confidently asserted more than two thousand years ago, and probably believed at a much earlier period, is very generally admitted at present; but the highly important question of the limits and boundaries of the possible deviations from the ordinary term, the primum et ultimum tempus pariendi,—received no satisfactory solution from ancient inquirers, and is unhappily far from being sufficiently illustrated by the researches of modern science.

In treating this subject, the author arranges his observations under three divisions: first, the natural period of gestation in woman; second, premature births; third, the possibility of protracted gestation.

Natural Period. "We are in possession," says Dr. Montgomery, "of facts sufficient to warrant our belief, that the natural period of gestation is forty weeks, or two hundred and eighty days." We entertain some doubts as to the number of days being known with such precision. The author states but four cases in confirmation of his doctrine, and it would be easy to obtain from the writings of Dewees, Desormeaux and others a much larger number in opposition to it. Dr. William Hunter asserted the usual term to be thirty-nine weeks, but with a frequent difference of one, two or three weeks. The instances are necessarily far from numerous, in which it is possible for females, either from peculiarity of situation or superior sagacity, to ascertain with certainty the exact date of conception; and as our knowledge of those cases must generally depend exclusively upon the statement of the women concerned, who according to their judgment and honesty may be deceived themselves or not unwilling to deceive others, we should be inclined to question the accuracy of conclusions deduced from so dubious and imperfect data.

Premature Births. Dr. Montgomery agrees with Dr. Hunter in stating the end of the seventh month as the earliest period at which the condition of viability can exist. He once saw a fœtus,

* Herodotus, Erato, c. 69.

"which at the utmost could not have completed the fifth month, and which lived for a few minutes; and another of five months and a half, which lived for a few hours: but in both, the state was that of mere existence, without the presence of any condition that could lead to the most remote expectation of life being continued."

Respecting the age of the fœtus at delivery, mistakes often arise from its size and external appearance,—in consequence of accidents, or the existence of disease in some part of the ovum,—not corresponding with the real period of gestation. A child of seven months, Dr. Montgomery declares, does not even remotely resemble one that has been carried to the full term. It differs from it in the imperfect development of its system, particularly of its lower extremities; in the color and tenuity of its skin; in the appearance of the generative organs; in the condition of the hair and nails; in the less solidity of the bones of the cranium, and their less close approximation along the sutures; and in the middle point of its length being found not coinciding, as in a mature child, with the umbilicus, but above it and nearer to the sternum.

It is a curious fact that there are certain women to whom it appears natural in all their pregnancies to have the time of delivery anticipated by two or three weeks, so that they never go beyond the thirty-seventh or thirty-eighth week. This has been observed in one female by Dr. Montgomery, and in others by Van Swieten and Foderé; and a remarkable instance is mentioned by La Motte of a young woman, who was delivered of her first child seven months after her marriage, and, with a felicity in such cases proverbially rare, experienced upon becoming pregnant again an equal abbreviation of her second gestation.

The notion that a seven months' child may be reared, while one of eight months must necessarily perish, is in this country still credited among the vulgar, and was formerly taught and explained by some of the brightest luminaries of ancient science. "Pythagoras, Hippocrates, Diocles, Avicenna and others," says Sir Thos. Brown, "have set upon us numeral relations and temporal considerations in the womb; not only affirming the birth of the seventh month to be vital, that of the eighth mortal, but the progression thereto to be measured by rule, and to hold a proportion unto motion and formation."* The elder Pliny, in his admirable

* Pseudodoxia Epidemica, B. 4, c. 12.

cyclopœdia of the knowledge and ignorance of antiquity, mentions this doctrine as erroneous, and refuted by facts;* and it must be unnecessary at the present day to remark that an infant's prospect of living always bears a proportion to the maturity of its organization, and to the advance it has made towards the natural period of delivery.

Protracted Gestation. Professor Jörg, while he admits that the period of gestation of the lower animals may be curtailed or extended, contends that with women it is invariable, and never prolonged beyond the two hundred and eightieth day.† This opinion though certainly not uniformly reconcilable with facts, is yet less frequently contradicted by them than we are apt to suppose. Its learned advocate properly cautions us against mistaking *protracted parturition* for *protracted gestation*,—a distinction perhaps too often overlooked,—and mentions a case, in which labor commenced on the two hundred and eightieth day, but was not completed, in consequence of the feebleness of the pains, until after the lapse of a fortnight, and which by some observers would have been considered an unquestionable instance of a gestation of two hundred and ninety-four days. We must remember, however, that if there be a single well established case of extension of the regular term of pregnancy,—and such there undoubtedly is,—it is at once fatal to the doctrine of those, who on the strength of the mere negative evidence of having themselves never witnessed such a fact, deny the possibility of its occurrence.

Dr. Montgomery entertains the common opinion, that though a certain period of gestation be most generally observed, it is liable to variations, and may sometimes be prolonged. He is very far, however, from asserting a frequent deviation from the ordinary period, and of the numerous cases recorded by a great number of eminent medical writers, those appear to him to carry with them the fullest demonstration of their truth, in which the usual term was not exceeded by more than three or four weeks. Instances in which gestation was unquestionably protracted are quoted from Blundell, Merriman, William Hunter, Desormeaux, Velpeau, Dewees, Hamilton, Burns, and Campbell; and two cases are given,

* Nat. Hist. L. 7, c. 5. See Aristotle, Hist. de Animalib. L. 7, c. 4. § 53, 54.

† Legal Responsibility of Females, &c.

The labia of the os uteri are generally found notched or fissured in women who have borne children; but the reverse of this condition is no valid proof against the previous occurrence of childbirth.

When *recent delivery* is suspected, we are to ascertain the correctness of that suspicion from the general expression and appearance of the countenance, and the state of the pulse and skin; from the condition of the mammæ, of the abdomen, os uteri, vagina, and external parts; from the flow of the lochia; and from the laceration of the fourchette and perineum. Where the signs of parturition derivable from these various sources are all present, there can be no doubt of that event having taken place. When only a part of them is found, the case is very different; their evidence must be carefully sifted, and received with great caution, as almost any one of them, standing by itself, may give rise to mistakes respecting its signification.

Alterations in the countenance and in the phenomena of the pulse and skin, when considered alone, are of course entitled to but small regard.

In the breasts, while in some cases very suspicious appearances are observed where pregnancy has not existed, in others little or no change can be perceived after actual delivery. A copious flow of milk sometimes follows the expulsion of uterine hydatids, and may occur to women who have never been pregnant, and even to men. Still, an abundant secretion of this fluid, commencing about the third or fourth day after delivery is supposed to have happened, must be considered a strong indication of the reality of that occurrence.

The size of the abdomen will vary according to the recency of delivery, the period of gestation at which it occurred, the obesity or tenuity of the omentum and abdominal walls, and the greater or less inflation of the alimentary canal.

When the uterus is felt enlarged, its change of size may be owing either to recent delivery, to an early stage of pregnancy, to organic disease, to a mole, to a mass of hydatids, or to an accumulation of retained menstrual secretion.

Rupture of the fourchette is a very common, but not uniform, effect of parturition. Laceration of the perineum, in connexion with a relaxed state of the os tincæ and vagina, is a highly important sign; but the laceration may have been occasioned by an

accidental injury, and extreme relaxation of the external parts is sometimes caused by menstruation. A cicatrice of the perineum may have followed a wound arising from casual violence, or from a surgical operation.

The lochial discharge may sometimes escape notice, in consequence of its early cessation, which occasionally takes place on the third day after delivery; or other fluids of a different nature may be mistaken for it. Dr. Beck thinks that its peculiar odor would render this error impossible, but we should not desire to see the "odora medicorum vis" appealed to as the final arbiter of an important case.

One of the most curious facts adverted to in this chapter is, that a woman may be pregnant, the motions of her child be felt, and yet childbirth never ensue, the fœtus having perished, and been decomposed and dissolved in the fluids of the ovum. A case of this kind was seen by the author, and a similar one is quoted by Morgagni from Nebelius.

At the close of the work a paper is appended respecting the *Spontaneous Amputation of the Fœtal Limbs in Utero*, an interesting subject to which Dr. Montgomery has paid much attention.

That children are occasionally born with a deficiency of one or more of their limbs, has long been known; but the nature and cause of this lesion appear to have been until lately not at all understood.

Haller denied that such cases are the effect of mutilation or the removal of parts already formed, and referred them to original malformation or imperfect development. That this opinion of the great physiologist is erroneous, we have ample proof in the fact, often observed, of the amputated limb being expelled from the uterus at the same time with the rest of the child.

Richerand, Desormeaux, and most other writers considered these injuries the result of inflammation and gangrene, a view purely hypothetical, and entirely at variance with the appearances of the truncated parts.

The explanation proposed by Dr. Montgomery was suggested to him by a case which occurred in his own practice. He attended about eight or nine years ago a patient who suffered abortion in the fifth month of gestation. The circumstance in the fœtus which most engaged his attention was the appearance of ligaments

surrounding the limbs. "On examining them," he says, "I found that they consisted of distinct threads passing from both hands downwards to the legs; at one end these threads, or fine cords, had formed a complete ligature round the middle of each hand, causing a distinct depression where it passed, the part of the hand below it being almost completely undeveloped: from the hands, these cords descended towards the legs, which were crossed, and surrounding them in this position, just above the ankles, compressed them so tightly that fully two-thirds of their whole thickness was thereby divided, without, however, causing any breach in the skin, or the slightest appearance of disease or discoloration of any of the parts."

The origin of these ligatures, the author does not attempt to explain, and Professor Gurlt has attempted it with but indifferent success. Whatever their source, Dr. Montgomery believes them to be "the agent which is the general, and most probably, the invariable cause of the lesion in question;" and this opinion, he informs us, is now universally adopted as the true one.

It is not often prudent to express doubts respecting the correctness of a doctrine which enjoys the sanction of universal acceptance. Yet we hope we shall not be accused of unwarrantable skepticism, nor suspected of having embraced the uncourtly sentiment of Roger Bacon, "quod omnibus videtur, falsum est," when we acknowledge that we are not entirely satisfied with this popular explanation. We think, that it assumes too much when of an effect that occurs frequently it asserts that the uniform cause is a peculiar circumstance which has been observed but very rarely, only twice in the fourteen cases mentioned by the author, and not once besides in all the others on record; and we are inclined to suspect that in the great majority of instances the real instrument of the lesion has been the umbilical cord. We are fully aware of Dr. Montgomery's objection that the action of this cord could not be long enough continued to occasion amputation; but we think he has magnified the difficulties of the matter; and we are not certain that he attached much importance to his objection, for we find him quoting with approbation a passage from Morgagni, in which that cautious and accurate philosopher expresses his suspicion that the leg of a fœtus which he saw, had been *broken "from the funiculus umbilicalis having been applied around it."*

In the two cases in which the author saw a deep indentation in the leg in consequence of compression by the funis, had this agent been applied earlier, it seems probable that it might have prevented the development of the lower part of the limb and destroyed its vitality, without losing its own through interruption of its circulation. This opinion appears to us to be favored by the fact of the vessels of the cord being older, and stronger, and more under the influence of the heart than those of the leg; yet we are far from advancing it with any thing like a dogmatic confidence in its correctness: the subject is obscure and difficult, and has perhaps been not yet sufficiently examined in the high court of time and observation.

In concluding this notice, which we have extended far beyond our purposed limits, it is unnecessary to repeat the opinion which we have expressed of the high merits of Dr. Montgomery's treatise. We will only add, that we consider it fully entitled to the praise of being the very best summary of all that is at present known respecting the various subjects which it discusses, and cordially commend it to the attention of every physician and physiologist who has not already availed himself of the advantage of studying it.

BIBLIOGRAPHICAL NOTICES.

NEW YORK JOURNAL OF MEDICINE AND SURGERY.

Under this title a journal has been commenced in New York, which, if we may judge from the two numbers already issued, bids fair to take a high rank among the medical periodicals of this country. In a city so large, and presenting such facilities for observation in its numerous public receptacles for disease—where there is so much activity and enterprise in every other calling and pursuit, it is singular that the medical profession should so long have been contented to be without an organ of their own, in which they might record the numerous important facts, so large a body of educated physicians, with such ample resources at their command, must constantly be collecting. Some of the more industrious and enthusiastic members of the profession, have for a long time felt this want, and rousing themselves from their apathy, the two well filled, and beautifully printed numbers before us, are the consequence. We hail our medical brethren in New York, and wish them every success in their undertaking, and in commencing a similar one, hope that both may serve to elevate the character of medical literature, and enlist new laborers in the field of close observation and diligent study.

From our knowledge of the acting editor of the Journal of Medicine and Surgery, we have a guarantee that none but ably written original articles will be admitted. He says at the close of the first number, "The great object of our enterprise is the collection and publication of *original matter;* in this the profession must join and help us, not only with counsel, but with the intellect and pen. It must be recollected, good essays upon scientific subjects, are not efforts of the imagination, but the result of much experience and observation. We want no theoretical speculations, however brilliant and well written. We want plain practical common sense, the result of good opportunities and much reflection." In fact the original articles in both numbers are highly practical, and some evince much care and labor bestowed in rigorously analysing facts, before their results were laid before the public. We would refer as instances of this, to the articles on *Cancer Uteri*, and *Morbus Coxarius*, in the first number. Some of the other essays are also well written, and their authors for the most part give a fair promise of supporting an elevated character for the Journal. The statistics of the *Bloomingdale Asylum*, by Dr. McDonald, is a paper replete with interest, carefully compiled, and well written; any journal which could present one such paper as this in each number, may be certain of success. There are two very valuable memoirs translated from the French—one, Nelaton on *tubercular disease of the bones*, the other, Barthe on the *indications for tracheotomy*, both of which possess a high degree of merit; the first of these memoirs we look upon as one of the most important contribu-

tions lately made to pathology. In the critical department, a division of labor is introduced which ought to ensure a fair representation being made of the merits or demerits of the various authors they review.

On the whole, we hail the appearance of this Journal as being likely to call out the dormant talent of New York. Should its subsequent numbers equal the two first, we think we may predict it a brilliant career. Its typographical execution is beyond all praise. W. P.

A Lecture on Loxarthus, or Club Foot. By THOMAS D. MUTTER, M.D., Lecturer on Surgery, Fellow of the College of Physicians, Member of the Academy of Natural Sciences of Philadelphia, Honorary Member of the Medical Society of Philadelphia, &c. &c.

THIS lecture of Dr. Mutter made its appearance very opportunely, to meet the wants of the American medical public, and has been remarkably well received. Dr. Mutter deserves the thanks of the inquiring members of the profession, for the information thus afforded on a subject which has excited very general and proper interest in the whole profession. We deem the work of Dr. Mutter well worthy of an extended and critical notice, which in fact we intended preparing for this number of the Journal, but we have thought it better to reserve it for the succeeding number, when we shall notice it in detail, in connection with a new work by a celebrated author, which had been sent to us by a medical friend who had received it from Europe.

Memoire sur la Cure Radicale des Pied Bots. Par M. SCOUTETTEN, D.M.P., Professeur en Medicine, Agrege a la Faculte de Strasbourg, Chirurgien Major, Professeur de Medicine Operatoire, Membre de l'Academie des curieux de la nature de Berlin, de la Societe Royale de Medicine de Copenhague, de l'Academie Royale de Metz, de l'Academie Royale des Sciences de Toulouse, de la Societe Medicale, d'Emulation, &c. &c. &c. pp. 118, 8vo. Avee six planches.

PROF. SCOUTETTEN is already favorably known to the profession by his works on cholera, translated by Prof. A. Sidney Doane, of New York—his Methode Ovalaire ou nouvelle methode pour Amputer dan les Articulations. We received through the politeness of a distinguished surgeon of this country this memoir, which had been sent to him by a medical friend now in Europe. We were so much pleased with the work, that we had made some progress in the translation of it, with the intention of offering it, when finished, to the editor of Bell's Medical Library, for re-print in that valuable work, but our labors we find will be superseded, by the announcement that it will appear in a similar periodical.

We shall nevertheless give a full abstract of its contents, for the next number of the Journal, in connection with the work of Dr. Mutter and the American cases of treatment of Club Foot.

CATALOGUE AND CIRCULAR of the *Albany Medical College*—pp. 30, 8vo.

THIS is the title of a neatly printed pamphlet we have recently received. It emanates from the trustees of the Albany Medical College, a new institution which is about to commence its second session under very flattering prospects, in the city of Albany, state of New York. From the pamphlet before us, it appears that sixty-eight students

attended its opening session; thirteen of whom received the degree of doctor of Medicine.

We have the pleasure of a personal acquaintance with some members of its faculty, and their well known ardor and diligence, we think, warrant the conclusion that in the sphere in which they are now called to move, as fellow helpers to the more general dissemination of the truths of medical science, they will prove themselves eminently successful. We hail them as worthy co-laborers with the many who are now ardently engaged in raising the standard of medical education in our country. We hope that nothing may hereafter arise to shade the pleasant prospect which at present lies before them.

By reference to the list of advertisements in this number of the Journal, the names of the several professors in this institution will be found.

Introductory Lecture before the Albany Medical College, delivered October 1st, 1839. By DAVID M. REESE, M.D., Professor of the Theory and Practice of Physic; pp. 22, 8vo.

A PRODUCTION creditable to the talents of the author, and well worthy of general dissemination and perusal. It is written in a sprightly style and adapted to the popular mind. Some of its passages are particularly good, and should commend themselves to the attention of a few of the teachers and writers of the present day; and that too not in the field of medical literature alone.

The American Journal of Dental Science. Edited by CHAPIN A. HARRIS, M.D., Baltimore, and ELEAZAR PARMLY, New York.

THE above is the title of a new periodical devoted particularly to the interests of our *Brethren* of the *File* and *Forceps*. It has reached its third number; one which has not in the least disappointed the high expectations created by its predecessors. We look upon this undertaking as fraught with interest, and pregnant with good to the community at large, and more particularly to the members of the profession.

We commend it to the favorable attention of the medical community, and ask for it an extended patronage. We do this the more cheerfully because of the intimate connexion which exists in reality between this branch of our profession, and *those* to the interests of which *we* are more immediately devoted. We trust the time has come when dental surgeons will bestir themselves in meeting the obligations of the whole community which are upon them, and not confine themselves to the building up of personal reputation and individual fortune. They have the time and the *talent*, and should freely lend the one, and bestow the other, in the most unwearied efforts to drive every quack from *their* field.

We would particularly call their attention to an immediate effort either to establish schools of dental surgery in this country, or attach chairs devoted to this branch of a medical education, to the different colleges already in existence. Although many difficulties would necessarily be encountered in carrying into successful operation either of these suggestions, we nevertheless believe that one or the other of them could be fully carried out, to the great benefit of both professions, and the people generally.

Let the members of these kindred professions but see, eye to eye, and unite diligently in the determination to exalt the standard of education in both departments of

their work, and we confidently predict that the time will soon come, when the public will *know it* (and act accordingly,) to be most to their interest to commit their health and lives into other hands, than those of individuals whom they would not trust to mend a pair of shoes, or patch a pair of breeches.

The Dental Art—a Practical Treatise on Dental Surgery. By CHAPIN A. HARRIS, M.D., Surgeon Dentist. Baltimore, Armstrong & Berry, 1839—pp. 384.

THE above is the title of a most excellent work, recently issued from the press in this city. A work in every respect creditable to the talents of its author, and well calculated to be useful to the dental surgeon and student. It contains a fund of interesting matter, apparently the result of long experience and careful observation. We sincerely trust it will meet with an extensive circulation.

Essay on the Locusts of North America. By N. POTTER, M.D., Professor of the Theory and Practice of Physic in the University of Maryland.

WE have had the pleasure of seeing this interesting pamphlet by Prof. Potter, which is just about to be issued from the press. The lovers of natural history may anticipate a rich treat in this work. Its facts have been accumulated with great research, and the accurate account which it gives of the formation, habits and history of the locusts of our continent, has been long a desideratum. The plates which accompany it are executed with beauty, accuracy and taste.

The London Dissector, or Guide to Anatomy, for the use of Students: comprising a Description of the Muscles, Vessels, Nerves, Lymphatics, and Viscera of the Human Body, as they appear on Dissection; with directions for their demonstration. Revised and corrected by EDWARD J. CHAISTY, M.D., Demonstrator of Anatomy in the University of Maryland. Baltimore: John Murphy; Cushing & Bro.; John Cushing & Co. Philadelphia: Thomas, Cowperthwait & Co. 12mo. pp. 273.

THIS judicious compilation by Dr. Chaisty, will facilitate very greatly the labors of the student in the dissecting room. He has selected from the London Dissector its most accurate descriptions, and has substituted for those which are obscure, the more correct accounts found in Shaw's Manual. Added to these are many valuable suggestions of his own. It combines all the advantages of the two manuals now in common use, and is of course superior to either of them.

FOREIGN INTELLIGENCE.

MEDICAL.

From the British and Foreign Medical Review.

On Ligature of the Limbs, as a means of shortening the duration of the paroxysm of Intermittent Fever. By Drs. PENBECK and GOEDECHEN.

[THE following cases contain no novelty; but it is well occasionally to recall the attention to important facts in pathological and practical medicine.]

CASE I. A man, aged fifty, of robust constitution, had been suffering for more than three months from tertian fever, which had resisted all rational means of treatment. Dr. Penbeck, therefore, advised the patient to try the application of the ligature. As the sensation of cold had hitherto commenced in the feet, and had from thence spread over the rest of the body, the ligature, as soon as the first symptom of the cold fit was perceived, was applied tightly immediately above the knee; the cold was, in consequence, soon dissipated, but some heat followed with rather profuse perspiration. The patient continued to apply the ligature immediately on the slightest feeling of cold, at the usual period for the return of the paroxysm, and succeeded in arresting the further development of the cold fit. Heat and perspiration, however, still continued; but these symptoms were removed by quinine, which had formerly been given without relief.

CASE II. A woman, aged fifty-two, was attacked with intermittent fever, and refused to take any medicine for its removal. Recourse was, therefore, had to the ligature as the only means which promised to be beneficial. The first application had scarcely any effect; the second shortened the cold fit and diminished the heat and perspiration. By each succeeding application the paroxysm became less severe, and disappeared entirely with the sixth, and in fourteen days the patient was in a condition to undertake a fatiguing journey.

CASE III. A sailor, aged thirty-seven, of weak constitution, was attacked in Feb'y, 1834, with septan fever, complicated with gastric affection. A treatment, principally directed against the latter, removed the fever, and the patient was dismissed the hospital. He was again received, on the 4th of April, with tertian fever; the cold fit lasted about one hour and a half, and was extremely severe; the hot and sweating stages, which were moderate in intensity, lasted respectively half an hour and a quarter of an hour. After some preliminary treatment, to remove some gastric symptoms, the ligature was applied, at the approach of the paroxysm, to the extremities, with the effect of reducing the cold stage to one hour's duration, and of changing the fever to its

original septan type. Each succeeding application of the ligature reduced the intensity of the paroxysm, and in three weeks the patient was dismissed cured.

Zeitschrift fur die gesammte Medicin. Band 9, Heft 1.

On the Mechanical Action of Tartarized Antimony. By G. Polli.

According to Giacomini the effects produced by the application of tartar emetic to the skin do not in the least depend on its dynamic action, but on the mechanical action of its minute crystals. Hence the effect of emetic frictions on the economy must be quite different from that produced by the same salt taken internally. In proof of his opinion, Giacomini adduces the sharp angular form of the crystals and alleges that their action is increased by the addition of powdered sugar, that the same result will be produced by any other crystalized salt or even by glass, and that the aqueous solution applied in local baths causes no irritation. But, on the other hand, considering that the cutaneous efflorescence, produced by tartar emetic, invariably presents the same characters, that a similar eruption is frequently developed by sympathy in parts far distant from the seat of friction, such as the scrotum, neighborhood of the anus, &c., and that pustulation follows when the ointment is simply spread on the skin. M. Polli inclined to the old opinion of its acting dynamically. To settle the question, he and several of his friends made a number of experiments of which the principal results were as follow: 1st. Tartar emetic friction always produced a papular eruption, with tendency to pass into the pustular form, and in three, a similar affection or pruritus was observed at the genitals or anus. 2d. The eruption never appeared before the thirty-sixth or after the forty-eighth hour after friction. 3d. Simple friction, with cloths dipped in water, when performed where the sebaceous glands are prominent, produced, in about half an hour, an eruption of rosy papulæ, without any tendency to become pustular or to suppurate; where the skin was smooth erythema only followed. 4th. The repeated application of local baths, made with a saturated aqueous solution of tartar emetic, never produced any eruption. 5th. Ointments made with the same proportion of sulphate of potass, or glass, sometimes produced a slight papular eruption about two days after the experiment, but in the majority of cases had no such effect, and in no instance where the skin was smooth. The eruption was always proportional to the violence of friction.

Ibid—*Giornale delle Scienze Med.-chir.* No. xxv.

Cure of a Stubborn Case of Aphonia by means of Ammoniacal Vapors. By Dr. Gerner.

A young lady was affected, in consequence of a cold, with complete loss of voice, which had already existed three months, notwithstanding all the remedies which were tried. Dr. Gerner, supposing the cause of the affection to be a relaxed state of the mucous membrane of the trachea, at last cured the patient completely in three days by the inhalation of ammoniacal vapors, disengaged from a mixture of a solution of muriate of ammonia and carbonate of potass.

Ibid—*Zeitschrift fur die gesammte Medicin, &c.* Feb. 1839.

On the Use of Dr. Blaud's Pills in Chlorotic Affections. By M. ADOME.

A MEDICINE very much resembling the pil. ferri comp. of the London Pharmacopœia has acquired great celebrity in the south of France on account of the cures it has effected in cases of chlorosis. It bears the name of its inventor, Dr. Blaud, who is Senior Physician to the Hospital of Beaucaire. The formula which he gives is as follows:

Sulphate of Iron, half an ounce.

Subcarbonate of Potash, half an ounce.

Mix with *mucilage*, and triturate the mass to a proper consistence, and divide into *forty-eight* pills.

The objections to this formula are that the pills are excessively large; that they have a very repulsive odor; and, particularly, that a chemical change quickly takes place in the mass, the carbonate of the protoxyde being, after a short time, converted into the sesquioxyde of iron. Dr. Blaud, however, maintains that, whatever chemical changes occur, his pill is of equal advantage medicinally, and corroborates this statement by a long list of cases, in which a cure was obtained, generally, in three or four weeks. M. Adome, in a memoir presented to the Academy of Medicine, proposes to remedy the defects above mentioned by incorporating with the pills a portion of *sugar* and of *pulv. altheæ*. As soon as the pills are made, he rolls them on a plate moistened with a mixture of mucilage and sugar, and then covers them with a fine powder, composed of sugar and gum arabic, aromatized with some essential oil, to correct the disagreeable odor. This process is repeated a second time, and the pills are then, in a great measure, protected against the influence of the oxygen of the atmosphere.

Ibid—*Revue Medicale et Bulletin de l'Academie.* Dec. 1838.

On the Use of Conium Maculatum in Scrofulous Ophthalmia. By Professor OTTO, of Copenhagen.

KOPP, of Hanau, recommends for scrofulous ophthalmia the conium maculatum. His formula is: *R.* Ext. Conii Maculati 3j. Aquæ Cinnamomi Spirituosæ 3jv. Solve. Of this he gives his children of two or three to four years old, and older, four drops three times a day, daily adding a drop to each dose. Blisters behind the ears, and compresses, wet with tinct. thebiaca, to the eyes were at the same time used. Professor Otto says he has cured more than thirty cases of scrofulous ophthalmia by this plan. He has, with Kopp, raised the doses as high as thirty to thirty-five drops without any bad result.

Ibid—*Wochenschrift fur die ges. Heilkunde.* April 6, 1839.

On Narcotine as a Substitute for Quinine in Intermittent Fever. By Dr. O'SHAUGHNESSY.

ON the 4th of August, 1838, at the meeting of the Medical Society of Calcutta, Dr. O'Shaughnessy laid before the society the details of thirty-two cases of remittent and intermittent fevers treated by narcotine as a substitute for quinine, and of which thirty-one were cured. The cases previously described in the first Report of the Pharmacopœia Committee were twenty-seven, making on the whole sixty, of which the narcotine was successful in all but two.

The cases now communicated were as follow:

Two cases by Dr. Goodeve. One of them, the case of the late deputy collector of Chittagong. Quotidian of several months' standing, spleen enlarged. Quinine was used without success, although given in every possible form. Arsenic was then tried and checked the fever, but did much mischief to the patient's general health. Narcotine was then given, and with such success, that Dr. Goodeve concludes it thus: "I do not hesitate in saying that this patient owes his life to the remedy in question." The other case was a patient laboring under inflammation of the bowels at the same time, where the administration of quinine would have been inadmissible.

Three cases are reported by Dr. Smith, of Hidgelee, who adds, "As far as these three cases go, I cannot speak too favorably of narcotine, and am very desirous of trying it more extensively." Capt. Marshall, of Calcutta, communicated three cases of severe ague occurring among his servants; all were rapidly cured, and Capt. Marshall says, "It would be presumptuous in me to offer any opinion as to the virtues of narcotine; all I can say is, that if ever I am ill of fever I shall unhesitatingly and confidently prefer it to sulphate of quinine or any other medicine I know of."

Mr. R. O'Shaughnessy described the case of a man on whom he had operated for stone, and who was attacked by violent ague on the day of the operation. The ague returned next day at the same hour. Mr. O'Shaughnessy considered it unsafe to employ quinine under these circumstances, and had recourse to narcotine. Four doses of this medicine were given, and Mr. O'Shaughnessy states, "The fever did not return, the wound was not in the slightest degree affected; there was no excitement or head-ache produced. After he took the first dose he slept soundly, which he had not done the two previous nights, and he was discharged cured of the effects of the operation on the fourteenth day after its performance."

Mr. O'Brien, the apothecary of the Native Hospital, reported three cases, Mr. Evans one, the Pundit Modoosoodona Gupta one, all successfully treated. The pundit's patient labored under dysentery at the same time.

Dr. J. Chapman, assistant surgeon of the Calcutta General Hospital, related the case of a European who contracted violent remittent fever at Kedgeree on the 16th of July, and was received in hospital on the 19th. Quinine was used in the usual manner on the first remission on the 20th, and again on the 21st, but the symptoms were rather aggravated than improved. The narcotine was then given, and its use was speedily followed by a complete remission. From that time the fever did not return, with the exception of restlessness and slight head-ache on the evening of the 23d. On the 28th, all medicines were omitted, and the patient was discharged convalescent.

Dr. O'Shaughnessy, further submitted two cases, treated in his own house among his servants, both of which were cured. Lastly, he communicated fifteen cases extracted from the journals of the Medical College Hospital. In five of these cases quinine and arsenic had failed, in eleven there was enlargement of the spleen or liver, in one inflammation of the knee-joint. Seven of these cases were remittents, and two of these had died. Of the two fatal cases one was admitted on the seventh day of violent fever and died next day. In the second, (a child,) the spleen, liver, pancreas, and mesenteric gland, were immensely enlarged, and the case hopeless from the beginning.

Dr. O'Shaughnessy added that, besides the sixty cases now recorded, more than 100 ague patients had been treated by his pupils and acquaintance with perfect success by this remedy.

[In a subsequent number of the India Journal the following letter appears, addressed to Dr. O'Shaughnessy, by Mr. Green, *Civil Surgeon, Howrah.*]

"I have now employed the narcotine in sixteen cases of remittent fever, and such is

my opinion of the efficacy of the remedy, that in instances of fever, intermittents and remittents, in ordinary healthy subjects, and in whom there is no complication of severe organic disease, I give it with the full expectation of arresting the next periodic return of the fever. I have seen the result follow in ten of the cases of the fever alluded to. I consider narcotine a more powerful antiperiodic than quinine. The remedy does not act silently. I have observed a degree of general heat follow its use in the first instance, and, subsequently, perspiration, so that it appears to excite in the system a salutary and powerful counteraction as to stop the morbid concentration that issues in fever. I have not observed narcotine to lead to local organic disturbance in the cases in which I have used it. In short, even from my scanty experience, I consider the remedy an invaluable one."

Ibid—*India Journal of Med. Science.* Sept. and Nov. 1838.

On the Effects of Cholchicum and Lytta used externally. By Thomas Laycock, Esq. House Surgeon of the York Hospital.

Some theoretical speculations led me to try the following liniment in rheumatism:

R Tr. Rad. Colch.; Tr. Camph. aa. partes æquales. M.

The patient who used this was a tall groom, (Richard Bould,) under the care of Dr. Belcombe, subject to rheumatic attacks, and who at the time was unable to lift his arm, on account of rheumatism of the deltoid muscle. I was agreeably surprised to find that, after the third application, and within twelve hours after the first, he was able to raise his arm freely to his head. The relief was, however, only temporary, but the application was used with equal success so often as the pain recurred. The patient was subsequently attacked by small pox, (after vaccination,) and nothing was heard of the rheumatic pains until he was convalescent, when they attacked his hip. He reminded me of the liniment, and one trial removed the pain. I now prescribed it for two or three out-patients, and these derived benefit. I then omitted the tincture of camphor, and I now find the groom is relieved with equal celerity and certainty by the tincture of colchicum root alone. Relief so constantly follows its application in his case, that I cannot doubt its utility. When the loins are affected he cannot turn in bed unless the tincture be previously used. He rubs one or two tea spoonsful on the part affected. I have found it equally successful in another case, in which the deltoid muscle was affected.

I believe it is well known that the tincture and powder of the meloe vesicatoria, or cantharis, is very useful in atony or paralysis of the bladder, especially of hysterical and aged people. I have found, however, that an emplastrum lyttæ applied to the loins is equally efficacious, and much more manageable. A female, confined to bed in the last stage of laryngeal phthisis, could not pass urine without raising herself upon her knees. She was at last too weak for the effort, and it became a question how the difficulty could be surmounted. I recommended an emplastrum lyttæ to be applied to the loins or sacrum, until she felt able to empty the bladder in the recumbent posture. In half an hour after the application she succeeded. She lived for three or four weeks subsequently, and the plaster was in almost daily use until she died. In most instances from one to two hours elapse before the desired effect is produced; in hysterical retention about the latter period. The plaster is useful in other cases. A man came to the hospital with a catheter in his bladder; he had not made water without it for three weeks. It was removed and an emplastrum lyttæ applied to the sacrum for three or

four hours; he never wanted the catheter again, and went away in a week quite well. I am not aware that this method of using the fly is mentioned by authors.

Ibid—*Med. Gaz.* March 16, 1839.

On Rheumatism from Copaiba. By A. B. Maddock, M.D., London.

[The following communication merits the attention of practitioners. The subject noticed in it demands and no doubt will obtain further investigation. There are few things in medicine more important than tracing *exactly* the causes of diseases.]

It is now some years since I expressed my belief that this complaint, (rheumatism,) generally originates from the administration of copaiba; and I take this opportunity of stating that further experience and observation have confirmed this opinion. I had, last February, under my care, a gentleman, aged nineteen, of a strumous habit of body, laboring under gonorrhœa, for which he was ordered by a practitioner, a copaiba mixture, two days after taking which he was attacked by acute rheumatism in the knees and feet, which rendered him a complete cripple. He had been in this miserable state a fortnight, when he applied to me. I immediately ordered him to discontinue the copaiba, and substituted the iodide of potash and compound decoction of sarsaparilla; he was almost immediately relieved, and shortly cured. I will readily admit that copaiba is, in many cases, a most valuable medicine; but in persons of a scrofulous constitution I am convinced that it is a most pernicious excitant; and, if there be any disposition to rheumatism, will most certainly produce it. I am glad to find that my first communication attracted the attention of Dr. Sigmond, (vide *Lancet*, vol. ii., 1837-8, No. 24, p. 826,) and that his opinion coincides with my own. The potassæ iodidum is the medicine which I have employed, and have almost uniformly found it successful.

Ibid—*Lancet.* May 25, 1839.

Note. One of the editors of the Maryland Medical and Surgical Journal states that he can confirm the above, and that he has met with repeated instances where the patient was entirely free from rheumatism before the copaiba was used.

From the London Morning Post.

Appearances observed on Inspecting the body of the late Lady Flora Hastings.

"There was great emaciation of the whole person. In the chest, the heart and lungs were in a perfectly healthy state; but there were extensive adhesions of the pleura, (or membrane,) covering the right lung to that which lines the ribs, evidently of long standing.

"In the abdomen there were universal adhesions of the peritoneum, (or membrane which lines the cavity and covers the viscera,) so that it could not be said that there was a single organ which was not, at every point on its surface, intimately connected with the parts in its vicinity. The liver was very much enlarged, extending downwards as low as the pelvis, and upwards, so as very materially to diminish the capacity of the right cavity of the chest. The gall bladder contained a small quantity of bile. The liver was of a very pale color, but its structure was not materially different from what exists in the healthy state. The stomach and intestines were distended with air; their coats, especially the muscular, were very much attenuated. The spleen and pancreas were free from disease. Some of the mesenteric glands were enlarged. There were a few small deposits of unorganized yellow matter, apparently in the substance of the adhesions.

"The uterus and its appendages presented the usual appearances of the healthy virgin state.

"From the character of the adhesions it was plain that they could be referred only to inflammation at some former and distant period of time. The effect of these must have been to interrupt the passage of the contents of the stomach and intestines, and in various ways to interfere with the due performance of their functions.

"W. F. CHAMBERS, M.D.
"HENRY HOLLAND, M.D.
"ASTLEY COOPER,
"B. C. BRODIE,
"JOHN MERRIMAN."

"*Experimental Researches on the mode of Operation of Poisons.*" By J. BLAKE, Esq. Royal Society, June 13th.

IN this paper the author examines more particularly the action of those poisons which appear to produce death by affecting the nervous system. After reviewing the evidence adduced in support of the opinion, that the effects of some poisons are owing to an impression made on the nerves of the part to which they are directly applied, he proceeds to relate a series of experiments undertaken in order to show with what rapidity the blood is circulated through the body, and tending to prove, that a substance may be generally diffused through the system in nine seconds after its introduction into the veins. Experiments are then related in which the more rapidly fatal poisons had been used, and in which it was found, that an interval of more than nine seconds always elapsed, between the administration of a poison, and the appearance of the first symptoms of its action. The mere contact of a poison with a large surface of the body appears to be insufficient to give rise to general effects, as long as it is prevented from entering into the general circulation. Various causes of fallacy in experiments of a similar kind which have been adduced in support of an opposite opinion, are pointed out. The following is a summary of the conclusions arrived at by the author:

1. The time required for a substance to penetrate the capillary vessels, may be considered as inappreciable.

2. The interval elapsing between the absorption of a substance by the capillaries, and its general diffusion through the body, may not exceed nine seconds.

3. An interval of more than nine seconds always elapses between the introduction of a poison into the capillaries, or veins, and the appearance of its final effects.

4. If a poison be introduced into a part of the vascular system nearer the nervous centres, its effects are produced more rapidly.

5. The contact of a poison with a large surface of the body is not sufficient to give rise to general symptoms, as long as its diffusion through the body is prevented.

Ibid.

[We copy Dr. Kennedy's letter on an obstinate and very common disease, as we believe it will interest the profession greatly, and, from the standing of Dr. K., will be received with attention.] *Eds.*

Treatment of Prolapsus Uteri. Letter from Dr. Evory Kennedy, Master of the Dublin Lying-in Hospital, to Sir Benjamin Brodie, Bart., on the Use of Caustics in Prolapsus of the Uterus.

Dear Sir: As I perceive, by the report of a late meeting of the Medico Chirurgical Society, at which you presided, that the method of treating prolapsus of the uterus by caustics is now, in consequence of an interesting communication made by Mr. Phillips, of your city, attracting the notice of the profession in London, I am induced to call your attention to the results arrived at by me after having fairly tested this plan on an extensive scale. It is now several years since, influenced by precisely the motives which you so very justly expressed, it occurred to me that caustics might be safely used for the cure of this distressing complaint, and that thus the objects sought by the ingenious operation of Dr. M. Hall might be arrived at in a simpler, less painful, and more effectual manner. I consequently put it to the test in the part of our institution appropriated to diseases of females, and also in private practice. After trying acids, caustics, and the actual cautery, the results proved the actual cautery to be infinitely preferable to the other caustics. This, indeed, might have been anticipated, when we reflect that the object was the producing the maximum degree of contraction by cicatrisation. It also at once relieved us from the embarrassment which you foresee, and which I, in practice, found it very difficult to guard against, in the use of acids, as its action was limited to the exact parts required. In fact, the comparative success of the cautery is so much greater that I now use it almost exclusively when I esteem it that any advantage is to be gained by operation. I do not, however, as might be supposed by Dr. Burn's observations,* limit the application of the cautery to the external opening of the vagina, but apply it also high up, taking in more or less of the circumference of the canal, and producing an eschar varying in extent according to the degree of relaxation. The operation is very easily performed, and strange as it may appear, attended with comparatively little suffering, the severe pain being only momentary. The vagina is held open by metal spatulæ, and its walls, principally the lateral and posterior, (the course of the urethral canal being carefully avoided,) steadily touched with a cylindrical iron, (at a white heat,) about an inch and a half long, and five lines in diameter, after which a dossil of lint, well soaked in oil, is introduced. It may be necessary in obstinate cases to repeat the operation. I may mention that Mr. A. Colles, who has also been using the cautery here in prolapsus, prefers making a ring eschar all round at a point high up in the vagina. In a case which I have been treating within the last few days along with Sir Philip Crampton, he suggested, and practised, a very simple and ingenious method in its application, viz: the introducing Weiss's three bladed, speculum, dilating the blades to about one-half, guarding the os uteri by the introduction of a piece of sponge, and then pushing up the cauterising iron, which came in contact with those portions of the vagina only that protruded between the blades. As yet I cannot say whether this plan is equally or more efficacious than that previously adopted, but it certainly possesses the merit of simplicity.

Now, as to the results of this mode of treatment generally, whilst it would be idle to

* See Burn's note in page 143, in addenda to his edition of 1837. It must have been my operation Dr. B. alludes to, as he saw some of the cases under treatment with me immediately before publishing his last edition, and I am not aware of its having been previously used.

say, in a disease of this kind, where oftentimes all the soft structures constituting the lower or pelvic walls of the abdomen, namely, the peritoneum, pelvic fascia, levator ani, the perinæum and its muscles, are in a state of lesion, that any degree of narrowing of the vagina possible to be produced, would necessarily cure the disease in all cases; yet I feel no hesitation in saying that in many cases it has succeeded where every other means had failed, and in all it has been attended with more or less benefit. It must, however, be combined with strict attention to the recumbent posture for several weeks, and, if necessary, keeping the womb up whilst the parts are contracting by the introduction of a stalk pessary, or small bag filled with astringent powder. The patient must very gradually resume the upright posture and exertion. The use of tonics and aperients, if necessary, wearing a pad or T bandage, or Hull's utero-abdominal truss, whilst any tendency to prolapse remains, will add essentially to the cure; but the employment of these supports I have insisted upon, as a precaution in all cases, for a month or two after the operation, however complete the amendment may have appeared. In some obstinate and most unpromising cases, where no pessary could be retained, in the first instance, I have rested satisfied with inducing such a state of contraction with the cautery as enabled my patients to use pessaries. I do not, however, imagine that the operation of the cautery is confined entirely to the vaginal walls, but rather think the adjacent structures, if they do not undergo a direct change by the extension of the irritation, at least become necessarily altered, and a consequent contraction is induced in them also by their connections and relations with the vagina. For obvious reasons the cases most suited to this plan of practice are women who have passed the period of child-bearing, but I have had recourse to it with benefit, and without inconvenience, in young and even unmarried females. Such a practice is only admissible, however, in extreme cases.

In concluding this communication allow me to add, that I have been induced to trespass thus upon you only from a conviction that it was my duty, as an individual in whom a great public trust is reposed, to inform the profession of any experience already possessed upon a subject now, apparently for the first time, opening upon their attention. I have availed myself, in so doing, of addressing you, because I knew no means so likely to prove effectual in accomplishing my object, certainly none so gratifying to the feelings of, dear sir, yours most truly and respectfully.

EVORY KENNEDY.

Lying-in Hospital, Dublin, May 30, 1839.

SURGICAL.

Ivory Bougies. Charriere, surgeons' instrument maker in Paris, has exhibited to the Academy bougies and other instruments, made of flexible ivory, (ivory from which the calcareous matter has been extracted). They are according to the pattern of some bougies given to him by Dr. Juterbock, of Vienna. They serve the purpose completely of elastic gum instruments, and have the great advantage, that they may be made in a few days, whereas the preparation of caoutchouc instruments occupies several months. In a practical point of view, the ivory bougies have the advantage that, when they are dry, any desired bend or curvature may be given to them, which is retained notwithstanding their elasticity. The dryer they are on introduction the more they expand, without losing in durability and firmness.

British and Foreign Medical Review.

Singular Varicose State of the Veins of the Neck. June 22, 1838. P. Barana, aged 17, an Italian, has a varicose state of the veins which run along the inner border of the right sterno-mastoid muscle. This state has existed since his birth. Some of these veins are very large and tortuous, others are very small, and so numerous as to resemble rather the structure of an aneurysm by anastomosis. This varicose state of the veins of the neck extends from the margin of the lower jaw to the right sterno-clavicular articulation. The swelling of the veins increases during exertion and when the breath is held, and diminishes under the contrary circumstances. The external jugular is unaffected.

The boy is in the hospital on account of the abscess in the nasal region, a small subcutaneous abscess of fifteen days standing, occupying the surface of the right nasal bone. Abscess opened.

This would prove an awkward case where it should be deemed necessary to ligature the common carotid, or subclavian, of the right side. *Lancet.*

The Oblique Section. A new method of Amputation. By Ernest Blasius, M.D., Professor of Surgery at Halle.

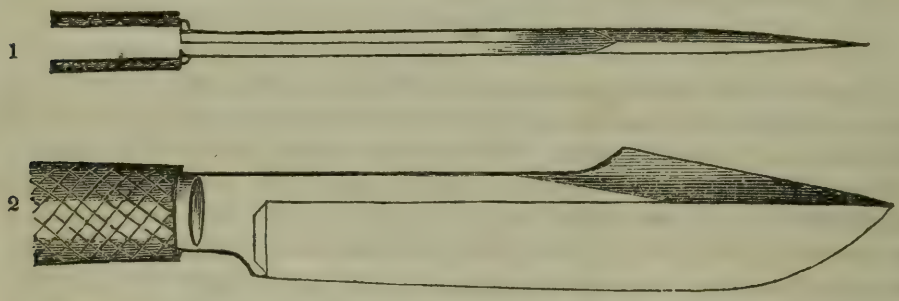
[Vide British and Foreign Medical Review, July, 1839, from which we extract.]

This learned author having enumerated and contrasted all the ancient and modern modes of amputation, in an essay of seventy-four pages, quarto, gives the preference to the "oblique section," as combining all the advantages, without being subject to the inconveniences, of other methods of amputation. The chief novelty of his improvement will be found in the peculiar shape of the instrument and the manner in which it is used.

"The characteristic feature of the oblique section," says Dr. Blasius, "is this. The soft parts are divided by two incisions, both of which have a double slanting direction, inasmuch as they are oblique to the transverse as well as to the long axis of the limb. These incisions are carried round the bone in such a manner that, when the latter has been sawn through, it will be found to occupy the deepest part of the wound, while the section of the limb, when the operation is completed, will be found to represent an oval

figure, one extremity of which is situated near to the part where the saw has been applied, while the other terminates at a considerable distance beyond it. The stump, before it is closed up, resembles a funnel, from which the whole of the base, and the greater part of one side, has been removed by an oblique section; or perhaps it may still more aptly be compared to a shallow paper cone, with its apex encircling the bone; and in the same way as we shut up a paper cone, by folding the lappet over the top, so does the surgeon close his stump, by bringing up the lower angle of the flap, and adapting it to the corresponding fissure at the upper part of the wound."

For the performance of this operation, Dr. B. uses a strong knife, five inches eight lines long in the blade, four inches long in the handle, which latter is ten lines in width and six in thickness. The blade measures eight lines across near the handle, and is single edged to within about two inches to its extremity; the remaining part is double edged, and the back is carried out so as to increase the width to thirteen lines. The blade terminates in a convex point, while the cutting edge at the back ceases suddenly, and presents a broad concave surface, adapted to afford a secure rest for the finger.



1. Back view of the knife. 2. Side view of the knife.

"A knife of the above dimensions may be used for removing any of the larger limbs which do not exceed the average size. For amputations below the knee in children, a smaller knife of similar shape is employed; and in certain cases, where the soft parts are few and the limbs very small, a convex scalpel will answer the purpose. It may be advisable, before commencing the operation, to trace out on the limb the track of the incisions, or at any rate to mark with accuracy the points, above and below, in which the two incisions will meet, and which constitute the two extremities of the oval surface, represented by the wound after the removal of the limb. It is not essential, for the subsequent closing up of the wound, that the two extremities of the oval should be exactly opposite, or, in other words, that an imaginary line, drawn between them, should pierce the centre of the limb; and, in fact, when there is a preponderance of soft parts on one side, it may frequently be desirable to make the incisions of different lengths, so that the longest may extend along the thickest side of the limb. By this arrangement, the edges of the flap will be more readily adjusted and brought into contact when the wound is closed. Too great a disparity, however, in the length of the cuts, throws difficulties in the way of their completion. The distance between the two extremities of the oval section, measuring along the length of the limb, must amount to from one-half to two-thirds of its transverse diameter, at the part where the removal takes place, the variation depending upon the greater or less degree of yielding, of which the skin and muscles may be susceptible. (Thus, if the incisions commence on the fore and terminate on the back part of the limb, the terminations would be opposite to a point distant from the commencement, from half to two-thirds the diameter of the limb at the part where the bone in sawn through.) The upper extremity of the oval should lie somewhat below the spot where the bone is cut through, indeed, just so much below, that from it the spot just mentioned may be reached with the point of the

knife, when the latter is introduced obliquely, according to certain rules which will be laid down. The distance, therefore, between the two will vary from one line to half an inch, according to the thickness of the intervening soft parts between the points where the knife is first introduced and the bone. In most cases it will be found convenient to place the upper extremity of the section between the two greatest diameters, which can be drawn through the limb, from before to behind, and from side to side. Rules will be given to guide the direction of the incisions as shall render them best adapted for the performance of the different amputations, always excepting those cases where an unfavorable state of the soft parts may control the choice of the operator; and it is one great advantage of this method, that the section may be carried from before to behind, from side to side, and, in fact, may be performed through every conceivable diameter of the limb; so that an entire circumference of healthy soft parts are by no means required, but wherever disease or injury has left them in sufficient quantity, then they may be rendered available for the purpose of closing the wound."

The following outlines, taken from Dr. Blasius's figures, will facilitate the comprehension of the verbal narrative which, it must be confessed, is not very perspicuous.

"After the usual precautions for suspending hemorrhage have been taken, the operation is performed in the following manner: Two assistants are required, whose business it is to draw upwards the integuments and soft parts, and at the same time to press them firmly around the bone, just above the part where the section is to be made. The operator, standing on the right side of the limb, takes the knife in his right hand, his thumb resting in the cavity cut out to receive it at the heel of the blade, and carries the instrument under the limb, so as to reach with its point the upper angle or commencement of the section previously marked out. Holding the knife so that both the length and breadth of its blade shall be directed obliquely towards the limb, he lays his left fore-finger on the rest which is cut out on the back of the blade, and by the pressure of his finger alone pushes the point down to the bone. He then carries the edge along the indicated oblique line, keeping the convex point as closely as possible in contact with the bone, and on reaching the lower angle or point where the flap is to terminate, directs the knife so as to bring it into the second line of incision on the side of the limb opposite to that on which he has just cut. While he is thus changing the direction of the knife, a manœuvre accomplished without the least difficulty, he alters his grasp of the handle, by bringing the end of his fore-finger into the rest at the heel

of the blade previously occupied by his thumb, and at the same time places his left thumb on the rest at the back of the blade. The point is again pushed to the bone by the pressure of the left thumb, and the knife is carried upwards, by observing the same rules which regulated the first incision, until it reaches the point where the operation commenced. As soon as this is accomplished, the operator seizes the lower angle of the flap with his left hand, draws it back, and by a few strokes of his knife separates the remaining soft parts from the bone, thus laying bare the latter as high as where the saw is to be applied. In limbs containing two bones, a catlin must be used to separate the deep seated muscles; but the operation is equally applicable to the removal of the thigh, the leg, the upper arm, or the fore-arm. A linen retractor is applied to hold back the flap, while the periosteum is divided and the bone sawn through in the usual manner. The wound is closed by bringing up the flap so as to unite the upper and lower angles of the section. The lower half of the oval figure is in fact folded upon the upper, so that while the surfaces of the two are brought into close apposition, their margins will be found to correspond with each other."

On the apparent lengthening or shortening of the Limb in Injuries and Diseases of the Hip.

M. Sedillot, one of the surgeons of the Val-de-Grace Hospital, at Paris, has published a very valuable practical paper on the difficulties of diagnosis in some cases of injury about the hip-joint, which we now propose to condense for the benefit of our readers.

He remarks—"The deviations of the pelvis, so common in diseases of the hip-joint, have been studied with great care of late years; and it is now admitted by all surgeons, that the *apparent* elongation of the limb on the affected side is generally owing to this cause, (pelvic deviation,) and not, as was formerly supposed, to a partial dislodgment of the head of the bone from its socket.

"It has been also ascertained that the deviation is not always from above downwards, but is occasionally from below upwards; in which latter case the limb, instead of seeming to be elongated, appears to be shortened; although, in truth, its real length is not altered.

"The attention of surgeons having been thus directed to these points, a great improvement in the history of the hip-joint disease has been introduced of recent years; but the pelvic deviations, caused by a sudden blow or contusion upon the haunch, have been rather neglected; although they deserve particular consideration, seeing that such accidents are exceedingly apt to be mistaken either for fracture of the pelvis or of the cervix femoris, or for some dislocation of the hip-joint—mistakes which might prove most serious both to patient and surgeon.

"The following case may be adduced in proof.

"A young robust man fell upon his right haunch and hip, while coming down a flight of stairs; his right foot being caught under the balustrade, prevented him from slipping down the stairs. He heard a sharp crack at the time, and he thought that he must have broken his limb. He rose, however, without assistance, but he could not rest the foot of the injured side upon the ground. A surgeon, who was immediately called to his assistance, finding that the limb was shortened and could not be moved but with difficulty, considered the case as one of dislocation of the hip upwards and outwards; extension was therefore employed for some time, but without any benefit.

"Next day a consultation was held; the patient lay on his back; his right thigh was

somewhat bent upon the pelvis, and drawn out or abducted from the other, so that the two knees were about a foot apart; the right leg was bent upon the right thigh and drawn inwards, the heel being on a level with the middle of the left leg. While in this position the patient was free from pain; but he could not change it without great suffering.

"Some of the medical men considered the accident to be a dislocation, while others regarded it as a fracture of the neck of the thigh bone. It was therefore necessary to study the various symptoms with peculiar care.

"When the two limbs were extended and brought together, the right one was found to be about an inch and a half shorter than the left one; no traction could bring the heels on a level with each other. When the knees were bent upon the thighs and brought together, the same degree of shortening of the right thigh was observed, in whatever position the pelvis was attempted to be placed. The great trochanter on the right side was more elevated than that on the left; the superior and anterior spinous process of the right *os ilii* also was an inch and a half, or so, higher than the corresponding process on the other side. Wherever therefore the measurement was taken, the right limb always seemed to be shorter by upwards of an inch than its fellow. The distance of the right trochanter, however, from the crest of the *os ilii* was observed to be uniformly the same, whatever was the position in which the limb was placed.

"With respect to the direction of the foot on the injured side, it was, as already mentioned, rotated somewhat outwards; but the patient still retained the power of rolling it round and even inwards. He could also, while lying in bed, extend and raise the entire limb. The flexion of the thigh on the pelvis could not be carried beyond a right angle; adduction was difficult, but abduction was free and without uneasiness.* In the upright position, the patient rested rather on the heel than on the toes of the affected limb. The right shoulder was observed to be decidedly lower than its fellow, and the left side of the body was *legerement arque.*

"The patient experienced considerable pain when pressure was made over the hip-joint, and when the limb was rolled inwards and adducted; but very little when abducted. When he lay flat on his belly, the line of separation between the buttocks was sensibly inclined from right to left, and from below upwards.

"Such were the most conspicuous features of the present case; and the question now came for consideration, what was the real nature of the injury present?

"That the shortening of the limb was not owing to fracture of any part of the thigh bone, M. Sedillot, inferred from the circumstance that, although the foot on the injured side was drawn up about an inch and a half or so, and thus the limb *seemed* to be shorter than its fellow, the distance between the knee-joint and any point of the pelvis was exactly the same on both sides, this could not possibly be so, if one thigh were in reality shorter than the other. The distance too between the trochanters and the ant. sup. spinous processes of the ilium was steadily the same.

"The free mobility of the limb also, although when left to itself it was turned outwards, and the power which the patient had of moving it in several directions, were arguments against the idea of fracture of the cervex femoris being present. Still it should be well remembered by the surgical reader that, in some cases of such fracture, the patient has at first, and even for several days after the accident, retained the power

* During these movements, a rubbing noise, *un bruit de frottement*, was audible; it was considered by some to be the crepitation of two broken surfaces, but M. Sedillot was of opinion that it was owing rather to the friction of fibrous surfaces one upon the other, or to slight articular shocks.

of moving his limb, nay, has even walked for some distance, and yet the distinctive characters of the injury—viz. shortening of the limb, rolling of the foot outwards, crepitation when the limb is extended and turned round, pain, &c.—have not made their appearance for a day or two. The explanation of such an occurrence is probably to be sought for in the circumstance that the fractured ends of the bone remained in contact at first, and that they were not separated until either the investing periosteum was torn, or the surrounding muscles had began to contract more powerfully than before.

"The age, too, of the patient, in the present case, naturally suggested a suspicion that the neck of the bone was *not* fractured. Of 225 cases of this accident, alluded to by Sir Astley Cooper, in two only was the age of the patient under fifty years.

"M. Sedillot therefore felt satisfied that the case was not one of fracture. That it was not one of dislocation, he inferred from the circumstance of the distance between the great trochanter—although it was very projecting—and the crest of the ileum being the same on both sides, from the comparative facility of movement, more especially that of abduction, in the limb, from the trochanter not describing a larger arc than usual when the limb was rotated, and from the turning of the foot outwards.

"Dwelling upon these and other considerations, he came to the conclusion that the case was merely one of severe contusion inducing a temporary lateral deviation of the pelvis. We have already stated that, whenever the hip is the seat of pain, the pelvis on the affected side very generally becomes elevated and inclined over somewhat to the opposite side, for the purpose, no doubt, of relieving the weight of the limb, and of the pressure of the foot on the ground. The shortening of the limb in such a case is only apparent; and this fact may always be readily ascertained by means of measurement with a piece of tape, as already alluded to.

"It is not improbable that, along with the contusion of the pelvis, there was also a sprain of the hip-joint; perhaps some of the ligamentous and muscular fibres around it partially torn, or even a portion of its articular cartilage broken off. When such accidents are present, the symptoms of the case will necessarily be more obscure, and will simulate more exactly those of dislocation of, or fracture near to, the joint.

"We have nothing to say as to the treatment of such injuries, as this must, as a matter of course, consist in rest, the application of leeches, and so forth. Should the deviation of the limb continue, after the immediate symptoms of the accident are removed, it may be necessary to resort to the use of mechanical means."

Med. Chirurg. Rev., from L'Experience.

We place upon record for future reference the following article, as it will prepare the way for the annual report to be made to the faculty at the meeting in June.

Retrospective view of the Progress of Medicine during the year 1838.

Having completed last week our annual task of laying before the student an account of the various Metropolitan Hospitals and Schools of Medicine, and having pointed out to him the path which he should follow in his search after professional knowledge, we now propose to cast a retrospective glance on the year which has gone by, and direct attention to the most prominent facts connected with the different branches of medicine which have been made public during the year 1838, through the medium of the Lancet. We shall thus present to our readers a brief retrospective review of the progress of medical science during the last twelve months. The most striking fact which results from a cursory view of the medical history of the last few years, is the absence of any dominant theory, enchaining and carrying away with it the minds of a majority of the

profession. The day of despotism in medical, as in political affairs, seems to have gone by, and we are settling into a healthy state of republicanism, in which independence of thought and action, a tendency to realities, and observation of facts, are rapidly taking the place of theory and generalization.

The domain of surgery has been enlarged by several important and valuable contributions. We shall briefly notice them in the order according to which they are recorded in the pages of this Journal. Mr. Hayden has performed, with success, the operation of taking up the subclavian artery, internally to the scalenus muscle, for aneurism of the innominata, and assures us that he found considerable advantage in employing a new needle invented by Mr. L'Estrange. He has also furnished us with the description of a perineal hernia in the female, which, if not new, is at least a very rare species of that affection.

Mr. Liston, to whom the profession is already indebted for so many improvements in the manual and therapeutical branches of surgery, has lately tied both the subclavian and carotid arteries for aneurism of the right subclavian near its origin. This operation, which was based on sound physiological views, was unfortunately followed by secondary hæmorrhage, which proved fatal. On the other hand, we have recorded a successful case by Mr. Fearn, of treatment of aneurism of the innominata, by ligature at the distal side of the tumor. Mr. Fearn applied a ligature to the common carotid about two years ago; the symptoms were partially relieved; and very recently he tied the subclavian artery, as it passes over the first rib. The recent account which we have received of this interesting case, renders it highly probable that the operations will be attended with complete success. Mr. Liston has also shown, by his operations for the relief of aggravated stricture of the urethra, the immense resources which the art of surgery presents in the hands of a bold and skilful operator; in one of the cases which Mr. Liston has recorded, the patient had not made water through the natural passage for a period of twelve years, and the state of the urethra was such that it was necessary to cut an artificial canal, which subsequently performed its functions in a satisfactory manner. We may also mention the improvements in fracture apparatus, suggested by Mr. Liston, which are daily employed with advantage at University College Hospital.

Mr. Hale Thomson has described a peculiar injury of the shoulder joint, in which the head of the bone was divided perpendicularly into two parts, the accompanying symptoms being, as might naturally be expected, of a perplexing nature. The same gentleman has also furnished a very curious account of preternatural enlargement of the mammæ in the male subject, accompanied by atrophy of the testacles.

To Mr. West we are indebted for a description of the successful extirpation of an ovarian tumor, an operation which has been generally fatal, and in some instances undertaken on the grounds of erroneous diagnosis. Thus, we have extracted from a foreign journal a case in which gastrotomy was performed for the purpose of excising a tumur of this description; but on opening the patient's abdomen, the tumor was found to be a *windy* one.

Dr. Warren has set an example of bold surgical practice in the extirpation of two diseased ribs, and the event of both operations has justified the undertaking.

In plastic surgery we do not find much recorded that is novel or remarkable. M. Blandin has successfully treated a case of artificial anus, by dissecting off a portion of neighboring skin, turning it back, and uniting it over the aperture.

Mr. Tyrrell proposes, for the purpose of arresting the destruction of the transparent cornea which occurs in purulent ophthalmia, to divide, in a *radiated* manner, from the centre of the cornea towards the sclerotica, the fold of conjunctival membrane which

forms the chemosis. Mr. Tyrrell has found this method to be more efficacious than any other hitherto proposed.

Finally, we have to enumerate the important contributions to the advancement of surgery which have been made by Professor Dieffenbach, of Berlin; the most remarkable among them are his operations for the cure of lacerated perineum in the female; the history of eighteen cases, in which resection of the facial bones was performed with success; and his recent memoir, containing an account of thirty-seven cases of wry neck, cured by section of the sterno-cleido-mastoideus muscle.

The novelties and improvements in medicine are less numerous than those by which the art of surgery has been enriched. We cannot, however, at the outset, avoid expressing our pleasure at the fact that the practice of medicine is daily becoming more simple, and that physicians of the present day evince an inclination to abandon those multitudinous prescriptions which, as Chaussier was wont to say, are nothing better than "formulæ for medical cookery." The most important contribution which has been made for many years to the domain of medicine, is unquestionably that of Dr. Conquest, relative to the treatment of chronic hydrocephalus by tapping. It is unnecessary to remind our readers that this disease has ever been regarded as a mortal one; yet by the method of practice introduced by Dr. Conquest, the lives of ten patients out of nineteen have been saved. In conjunction with this subject, we may mention three cases of chronic hydrocephalus, also cured by Dr. Engleman, by means of pressure, a mode of treatment which Mr. Barnard assures us originated with himself.

A novel method of applying the vapor of sulphur and iodine in the treatment of cutaneous affections and obstinate ulcers, has been introduced by Mr. A. Walker, who has recorded a few cases in which the combined power of those remedies produced the most striking results. Mr. Tait has administered colchicum to patients laboring under scarlatina, with very great advantage. Should the experience of that gentleman be confirmed by further trials of the remedy, an important progress will have been made in the treatment of infantile disease. Mr. King has related some cases in which the employment of acupuncture in ascites has been attended with success. A remarkable case of convulsions, in which compression of the carotid artery suspended the convulsive attacks, and afterwards removed the disease, has been recorded by M. Trousseau. Finally, Dr. Locock has introduced, with advantage, the use of arsenic in cases of atonic menorrhagia, and in some other disorders of the uterine system.

The labors of anatomists during the past year have not been productive of many remarkable results; in fact, anatomy appears to be at a discount. The only contributions in this department of medical science which we have to mention are those made by Miller, the mechanic, relative to several points of embryology, and the valuable observations on the structure of the negro's skin, by the late Mr. Wallace, of Dublin. Mr. Judd has also furnished several anatomical facts, worthy of notice, upon the last mentioned subject. To Dr. Knox we are indebted for the description of a new parasitical animal, *(cysticercus cellulosæ,)* inhabiting the human muscles.

Pathological anatomy does not seem to have been cultivated with much greater zeal than normal anatomy; in the former department, however, we have to notice an unique case of anterior spina bifida, which was related on the authority of an anonymous person, at the London Medical Society, and a very instructive case of ectopia cordis, by Dr. O'Bryen, from which may be derived several facts respecting the motions and sounds of the heart.

A sense of the importance of statistics, as applicable not only to the various relations in which man is placed, but also to medical science, is daily gaining ground. This may

be gathered from the various statistical communications of the highest value which are contained in the pages of this Journal for the preceding year.

The papers of Mr. T. R. Edmonds occupy the first rank, for the richness, variety, and value of the materials of which they are composed. A simple enumeration will at once show that we do not estimate too highly the contributions made by Dr. Edmonds to this department of science. They consist of communications on the influence of age and selection on the mortality of the members of the Equitable Life Insurance Society; on the duration of life in the English peerage; on the mortality and sickness of soldiers engaged in war; and on the mortality and disease of Europeans and natives in the East Indies. Mr. Farr has also furnished some valuable statistical observations on the Benevolent Funds and Life Assurance, and an important document on the rate of mortality and expectation of recovery at different periods of the Asiatic cholera. Lastly, some points relative to the statistics of infantile disease have been cleared up by original tables, for which we are indebted to Dr. P. Hennis Green.

We have thus taken a rapid survey of the different facts and observations connected with medicine, of any importance, which have been published during the course of the year 1838. Our catalogue is, perhaps, imperfect, but it has been drawn up with conscientiousness and care. *Lancet.*

Artificial Anus made in the Groin, with success.

An infant three days old did not present any traces of the anal opening. The raphe of the perineum extended without interruption from the scrotum to the point of the coccyx. The abdomen was tender and tympanitic, but there was no vomiting. The infant had taken the breast several times, and had passed its urine without difficulty. An incision of several lines in length was made over the supposed situation of the anus, and carried to the depth of three quarters of an inch or more, but without success. It was decided then to open the cæcum in the right iliac fossa. An incision was made near the anterior iliac spine; a small knuckle of intestine presented itself, which was replaced, and the cæcum was found without difficulty. It was opened, and several ounces of meconium immediately escaped, followed by a remarkable amelioration of the symptoms. The progress towards cure was very rapid; the alvine evacuations continued to be passed by the artificial opening, and on the eighth day after the operation the sutures were removed. *Medizinische Zeitung fur Heilkunde in Preusen.*

Lithotrity. M. Sanson, of the Hotel Dieu, has recently undergone the operation of lithotrity with the happiest result. During the whole period of treatment M. Sanson was not compelled to forego his consultations for a single day.

DOMESTIC INTELLIGENCE.

MEDICAL.

Report of Experiments on the Action of the Heart. By C. W. Pennock, M.D., Physician to the Philadelphia Hospital, Blockley, and E. M. Moore, M.D., late Resident Physician to the Frankford Asylum.

We have received through the politeness of one of the experimenters, a copy of this interesting Report, which was read before the Pathological Society of Philadelphia, October 28th—November 4th, 1839.

The experiments, fifteen in number, were performed on rams, calves, and a horse. "The stethoscopes or ear-trumpets used were flexible, constructed of a coil of wire, covered with gum elastic and silk; one, about four feet long, the ear-piece and hollow cone for the reception of sound, being of horn; the other, about two feet long, the ends composed of block tin, and smaller than the first. This instrument is essential to the success of the experiment, as the impulse is so great with the ordinary stethoscope, as to render the analysis of sound very uncertain. In measuring the heart, the ordinary shoemaker's measure is used, by which very accurate results may be obtained. Artificial respiration was maintained by the bellows, at eighteen to twenty inflations of the lungs per minute." We regret that our restricted limits prevent our giving the experiments entire; but, in justice to the enterprising and talented experimenters, we give the results in their own language.

"From the preceding experiments we draw the following conclusions:

"1st. The impulse is synchronous with, and caused by, the ventricular contraction; and when felt externally, arises from the striking of the apex of the heart against the thorax.

"2d. The expulsion of the blood from the ventricles is effected by an approximation of the sides of the heart only, and not by a contraction of the apex towards the base; during the systole the heart performs a spiral movement, and becomes elongated.

"3d. The ventricle contracts and the auricle dilates at the same time, occupying about one-half of the whole time required for contraction, diastole, and repose. Immediately at the termination of the systole of the ventricle, its diastole succeeds, occupying about one-fourth of the whole time, synchronous with which the auricle diminishes, by emptying a portion of its blood in the ventricle, unaccompanied with muscular contraction. The remaining fourth is devoted to the repose of the ventricles, near the termination of which the auricle contracts actively, with a short, quick motion, thus distending the ventricles with an additional quantity of blood: this motion is propagated

immediately to the ventricles, and their systole takes place, rendering their contractions almost continuous.

"4th. From the termination of their diastole to the commencement of their systole, the ventricles are in a state of perfect repose, their cavities remaining full, but not distended, while those of the auricles are partially so, during the whole time.

"5th. The sounds are produced by the motions of the heart or its contents, and not by striking against the thorax, as proved in all the experiments; being much louder when the stethoscope was applied directly to the heart, than when to the chest, or with the lungs interposed.

"6th. The sounds are more distinct when the muscle is thin, and contracts quickly. Hence, the clear, flapping character of the first sound over the right ventricle, as compared with the left.

"7th. The first sound, the impulse, and the ventricular systole, are synchronous. This sound may be a combination of that caused by the contraction of the auricles, the flapping of the auriculo-ventricular valves, the rush of blood from the ventricles, and the sound of muscular contraction. From experiments 3d, 4th, 6th, and 10th, when the heart was removed from the body, the ventricles cut open and emptied of their contents, the auriculo-ventricular valves elevated, and a sound, resembling the first, still heard, it may be chiefly attributed to the muscular contraction. That these valves aid but slightly in its production, may also be inferred from experiment 16.

"8th. The second sound is caused exclusively by the closure of the semi-lunar valves from the reaction of the arterial columns of blood upon them, in its tendency to regurgitate through the aortic and pulmonary orifices. This is proved by the greater intensity of this sound over the aorta than elsewhere, the blood having a strong tendency to return through the valvular opening; by the greater feebleness of the sound over the pulmonary artery, which is short, and soon distributes its blood through the lungs, thus producing but slight impulse upon the valves in the attempt to regurgitate; by the disappearance of the sound, when the heart becomes congested and contracts feebly; and, finally, on account of its entire extinction when the valve of the aorta was elevated.

"9th. The second sound is synchronous with the diastole of the ventricle.

"From these experiments, it will be seen that our conclusions coincide very nearly with those of the British physiologists—the correctness of whose results, when compared with those of the French, may be mainly attributed to the use of larger animals. From our observations, calves, of from four to eight weeks old, are decidedly preferable to other quadrupeds for these investigations. The tenacity of life of calves of this age is greater than in older animals, whilst the cardiac pulsations are slower, and more forcible, than they are in the younger. The heart of this animal, too, is of large size, and the introduction of hooks for the elevation of the valves is readily effected.

"The English and Irish physiologists enjoyed great facilities in the slow and regular action of the heart, as induced by the woorara. Perhaps, at some future period, when this may be obtained, the investigations may be pursued, as other points of inquiry are offered. (Signed)

"C. W. PENNOCK,
"E. M. MOORE.

"*Philadelphia, Nov.* 2, 1839."

We cannot forbear adding our voice to encourage these gentlemen in the true path of observation and experiment. We hail the matured fruit which was promised by Dr. Pennock's very valuable and useful essay defended as an inaugural thesis "*On the subject of Cupping Glasses in Poisoned Wounds.*" His success in his profession was then

confidently predicted. Prediction has become fact. We also must say in conclusion, that the establishment of the Pathological Society of Philadelphia will produce a most favorable influence on the study of diseased changes in this country. We urge the gentlemen engaged in this important enterprise to persevere in so laudable an undertaking. We omitted to state, as justice required, that Drs. Pennock and Moore were assisted in their experiments by Dr. Wood, Resident Physician of Frankford Asylum, Dr. Stille, of Pennsylvania Hospital, and Mr. Burns, of Mobile, but especially by Dr. Hardy, of the Philadelphia Hospital, who, they state, aided in all the experiments, and to whom "may be mainly attributed their successful results."

MILK SICKNESS.

Extract of a letter from a physician of Danville, Indiana, dated July 4th, 1839.

"DANVILLE has now become a perfect charnel house; no less than fifty died of 'Milk Sick' during the past year, and that too out of a population of five hundred inhabitants. The disease under the cognomen of 'Milk Sick,' I presume you are acquainted with, and I will give you a few outlines of this formidable malady, affecting alike cows, horses, dogs, hogs, and men. The causes are involved in mystery, and the treatment of little avail. The earliest symptoms in the human species are listlessness, and aversion to motion, stiffness in the back and knees, and loss of appetite. This is one stage, and has obtained the vulgar name of 'slows.' There is at the same time a peculiar fœtor of the breath, which is easily recognized by those who are familiar with the disease. In a few days, sometimes hours, a pain is felt in the 'scrobiculus cordis,' with a burning sensation in the stomach and incessant vomiting symptoms, precisely as occur in gastritis; there is also, obstinate constipation always present, and the oleum tiglii, and the whole range of drastic purgatives are of no effect; seldom are intestinal evacuations obtained, and the patient dies. I have felt very anxious to obtain an examination of the abdominal viscera after death, but the gross ignorance and superstition of the people will not consent, and thus the disease remains an opprobrium to our profession. Various are the opinions as to the cause producing this dire complaint; some say it is owing to the water being impregnated with some vegetable or metallic poison, others say it is a species of vine, of the parasite kind, allied in its properties to the 'rhus toxicodendron;' at all events there is no 'Milk Sick' until the fall, and during the winter months, when the herbage is sparse; the cows then imbibe the disease, and then woe be to the person who either eats of the butter, drinks of the milk, or eats of her flesh. The first observable symptom the cows have, is what is called the 'trembles;' that is, if they be driven round a field for a few minutes, at a faster pace than walking, they tremble excessively, fall down, and frequently die on the spot. The carcase is frequently eaten by dogs and hogs which chance to find it, and most of them die.

"With respect to treatment in this disease, I confess I know of none. I have treated it on general principles, and lost sight entirely of the name of the disease. I have treated cases as gastritis and as gastro-enteritis, but with as little success; and it still appears to me to be too speculative to aim at neutralizing the poison, or overcoming the difficulty in the stomach. The main stay in these deplorable cases is purgative medicines, and if we can only succeed in producing fœcal evacuations, the patient is almost invariably saved. I have given ol. tiglii gtt. iv, and rubbed in three drops on the umbilicus, but without producing any effect; I then have, as a *dernier resort*, given

ext. elater. grs. iv, but with as little success. Now, whether the failure is caused by introsusceptio, or by a severe spasmodic action of the muscular coat of the colon and rectum, I am at a loss to determine. In fact, the disease is of so questionable a nature, that much closeness and accuracy of observation, and investigation is necessary, in order to account at all for the anomalous symptoms we daily witness in this terrible disease. During the past winter, I have seen no less than twenty cows and oxen lying dead in the adjoining bottom, not more than a mile from my residence. A friend of mine lost, last winter, sixteen cows by this abominable milk sick.

"The late Professor John Eberle told me, when I visited him a year or two since, that he attended with Dr. Drake, on two cases in Cincinnati, laboring under 'Milk Sick.' It appears that the men had driven a cow from Lafayette, in Indiana, to Cincinnati, where it died, and they determined to take off the animal's skin, being the only part of the animal which was available. One of them had cut his hand a day or two previous, and the other, in skinning, cut his finger with the knife, and four days after, they were both seized with 'Milk Sick,' and one of them died. No antopsy took place, in consequence of the objections of the friends of the deceased."

We publish the above account, contained in a letter to a physician of this city, of a formidable and mysterious disease, which occupies much of the attention of our medical brethren in the west. We received a letter some time since, from Professor Offutt, of Vincennes, Indiana, informing us that he had forwarded a dried specimen of the plant which was supposed to cause the disease. We regret to say we have not yet received it, or we would have given a drawing of it for this number of the Journal.

From the Boston Medical and Surgical Journal.

Escape of Worms at the Navel. Some time in November, 1838, I was called upon to prescribe for a child about two years old, who had an ulceration of the umbilicus, which was of some weeks' standing, and which soon healed up, but shortly broke out again. As often as it healed it broke out, which was quite a number of times during the winter and spring. Some time in July past, the child complained of something biting, and on being examined, the head of a large lumbrici was found protruding from the ulcer in the umbilicus, and from which place seventeen large lumbrici have since been discharged. The child appears to be in good health.

C. G. POMEROY, M.D.

Fairville, N. Y., Oct. 9, 1839.

SURGICAL.

Removal of the Upper Jaw, with a large portion of the Malar Bone.

This very formidable operation was lately performed by Dr. Warren, of this city, for the first time in the United States. The unfortunate patient was a gentleman belonging to Newburyport, about 60 years of age, who for some time had been affected with a fungoid disease in the antrum, of a dreadfully painful kind, which must soon have proved fatal. The tumor was of a sugar-loaf form, occupying the right side of the face, and had forced its way through the cavities pertaining to the maxillary bone. The right eye was compressed and inflamed, and the cavities of the nostril partly filled by the tumor. Of course, the support of the right eye and the right side of the right nostril and palate bones was removed—thus opening the nostril, mouth and orbit into one common cavity. The patient supported this trying operation without a groan, and at its termination said that he would willingly submit again, were it merely to get relief from the intolerable sufferings which he had experienced from the presence of the tumor. He rose from the chair, at the conclusion, and undressed himself before retiring to bed. The wound was closed by the twisted suture, and united by the first intention. In a fortnight he was well enough to leave the chamber and amuse himself with a spy glass—using the organ which had been partly dissected from its socket in the operation he so lately passed through. The operation took place on the 17th of September, and on the 9th of October the delighted patient, thus almost miraculously saved from a horrible death, was able to leave the house.

Boston Medical and Surgical Journal.

Amputation at the Shoulder Joint. On Monday, the 2d instant, Dr. Walker, of Charlestown, amputated at the shoulder joint on a lad at Lynn, under the following very peculiar circumstances. On the 19th of August, A. E. Blood, aged 13 years, was kicked on the shoulder by a horse, while his hand was on his head. The axilla filled immediately. A physician was sent for, who finding the parts much swollen, but no evidence of any thing but a contusion, prescribed the remedies usual in such cases. Eight days from the accident there was a protrusion in the axilla, like a pullet's egg, of a bluish color. By the advice of Professor G——, of New York University, on the fourteenth day, an incision was made through the integuments just over the inferior edge of the pectoralis major. No bleeding or matter flowed from the incision; there was a little bloody serum. The operator not caring to look deeper for *matter*, merely dressed the wound lightly. The next day arterial hemorrhage occurred from the wound. This was arrested by a compress and bandage, but not so but that it followed again the next day and the day after. It was at this juncture that Dr. Walker was sent for. He found the lad pallid from loss of blood, having lost, as was estimated by the physician, full two quarts. The parts about the shoulder were very much swollen; there was no pulsation at the wrist or in the axilla. On examination, pulsation was perceived in the tumor. The arm was of nearly natural color and temperature, with some appearance of commencing œdema.

Dr. Walker stated to the friends the nature of the case, for the cure of which he recommended one of two operations; either the tying of the subclavian, or amputation at the shoulder-joint. He stated the difficulties and dangers of both operations—the

comparative safety of the latter, and the inevitably fatal result of the former, if, in cutting down for the artery, he should cut into the aneurismal cavity, and should be unable to find readily and secure the mouth of the bleeding artery. On a view of all the circumstances of the case, the friends desired Dr. Walker to amputate, which he proceeded to do, the subclavian being compressed, as it passes out of the chest by an assistant. The arteries were secured by ligature, as they were cut, to prevent further loss of blood. On removing the coagula, about sixteen ounces, after the amputation, and looking for the mouth of the artery from which the bleeding came, the subclavian was found completely severed transversely as it passes under the clavicle, the separated ends of which were an inch and a half apart—so that had an attempt been made to tie the subclavian, the lad could hardly have escaped with his life. In what way was the wound of the artery produced? There was no external wound, and the artery was cut short off as clean as though it had been done with a knife. The lad is now, September 9th, doing well.

Ibid.

Case of extirpation of the Eye. By GEORGE M'CLELLAN, M.D. Reported by Dr. B. J. BLANKMAN.

This case was a beautiful little girl, about two years old. The eye had been protruding for ten weeks, and finally it became an immense exopthalmus. Vision had not declined in it until eight or ten days before Dr. M'Clellan saw it. But the external tunics had then become greatly enlarged, and painful irritation had supervened. It was difficult to understand what the cause of protusion could be, for a medullary growth upon the optic nerve would have destroyed the vision in that eye at first. There was considerable constitutional irritation present, previous to the operation; the child was restless, and the eye apparently very painful, and continuing to grow worse every day, until the eye was extirpated. The operation was begun, first, by enlarging the outer angle of the lids by an incision outwards, and then plunging the knife behind the ball. A prodigious hæmorrhage of black blood gushed out from this wound. The next step to the operation was to remove the globe, by plunging a bistoury behind the inner canthus of the lids, and cutting off the muscular and nervous attachments between the ball and the foramen opticum. A large mass of discoloured cellular tissue was then exposed at the bottom of the orbit, from which a tremendous hæmorrhage issued. As soon as this was removed, the hæmorrhage ceased, and on examining it afterwards, it was found to contain several vascular cysts, into which the blood had been exhaled, and from the cavity of which the hæmorrhage had no doubt escaped. They were evidently blood cysts, such as Mr. Craig has denominated "hematomes." On cutting open the ball, it was found that the black pigment had nearly disappeared from the back part of the eye, and the choroid presented a reddish hue. The little girl is doing well. This was certainly different from the cases of aneurism by anastomosis.

The recovery has continued perfect unto the present date.

September 21. *Philadelphia Medical Examiner.*

NOTE.—We by no means wish this abstract of Foreign and Domestic Medical Intelligence to be considered as a view of all that has been reported, but our limits forbid more at this time. We hope in the next number to give a more condensed and general statement of the improvements continually making in Medicine and Surgery.

THE

MARYLAND

Medical and Surgical Journal.

April, 1840.

MEMOIR OF WILLIAM DONALDSON, M.D.

"Justum et tenacem propositi virum."

By Professor W. N. Baker, *M.D.*

Dr. William Donaldson was born of respectable parents, in Calvert county, Maryland, in the year 1778. After going through the usual preparatory studies, he entered St. John's College at Annapolis, while Mr. J. McDowell and Mr. Ralph Higginbotham were its presiding officers, and received the degree of Bachelor of Arts in 1798. His zeal in the cultivation of classical literature and his high appreciation of its beauties, here prominently displayed themselves. Indeed such was his proficiency in the dead languages, that he was called upon to participate in the duties of instruction, while not yet twenty years of age.

The elegant taste which led him into the groves of the academy, thus early, continued to be a striking characteristic through life, even amidst the excitement and turmoil of a most laborious professional career.

Upon leaving Annapolis he repaired to Baltimore, with the purpose of devoting himself exclusively to his favorite literary

pursuits. He met here, however, with his old friend Dr. Harry Wilkins, who advised him to enter upon the study of medicine. Dr. Wilkins, then his senior, still survives him. The friendship so early commenced, continued unabated to the close. To the suggestion of this excellent gentleman, whose locks are now silvered by the frosts of age, and whose sprightly wit and generous heart inspire sentiments only of affection and respect, are we indebted for so great an ornament to our profession and benefactor of mankind. Small and apparently unimportant are the circumstances which decide the current of our destiny. Illustrations are abundant in our profession, as in other spheres of life. Godman, who ran away from a printing office in our city, a poor and friendless boy, achieved the most brilliant reputation as an anatomist, a lecturer, a scholar, a naturalist and a poet. And Velpeau too, now at the head of the surgery of France, came to Paris a poor blacksmith, and sought service in the household of a distinguished medical man, who discerning his abilities, placed within his reach the means of acquiring knowledge, which have now elevated him to his lofty position.

Dr. Donaldson commenced his studies in the office of Dr. Littlejohn, then amongst the most distinguished medical men in this city, and attended the course of lectures in the University of Pennsylvania, during the session of 1802. He there listened to Rush, Shippen, the elder Barton, Woodhouse, Physick and Dewees, and enjoyed besides, the clinical advantages of the Pennsylvania Hospital. In March, 1803, he was elected a member of the Medical Society of Philadelphia, of which Dr. Rush was the president. During the spring, he returned and resumed his studies in Baltimore, and in 1804 received his diploma, "A COLLEGIO MEDICORUM IN CIVITATE MARYLANDIÆ."

Dr. Donaldson then entered upon the active duties of his profession, and a few years afterwards, received the highest proof of the confidence of his preceptor, by being associated in the practice. This was no less complimentary to the penetration and wisdom of the one, than the ability and worth of the other. During this period, Dr. Donaldson was threatened with fatal disease of the lung, from suppression of the eruption of measles. Every effort of skill in the treatment of his case was baffled—and reduced and emaciated, the hopes of his friends almost extinguished—he resolv-

ed to seek for relief, or a mitigation of his sufferings, in the more genial climate of the island of Jamaica. To the astonishment and delight of all, he returned after six months, renovated and restored.

The venerable Dr. Littlejohn was gathered from his labors in 1816, and upon Dr. Donaldson devolved the entire responsibility of the practice. During this year he married Miss Catharine W. Weatherburn, the daughter of John Weatherburn, Esq. who was for many years a distinguished merchant, and president of one of the principal banks. Mrs. Donaldson still survives, with an interesting family, to cherish the memory of one, whose kindness of heart and varied stock of intelligence shed happiness upon the domestic circle.

Meantime we find Dr. Donaldson, in 1808, elected a corresponding member of the Medical Lyceum of Philadelphia, and, in 1812, an honorary member of the Medical Society of Baltimore.

He continued to receive these honorable testimonials of the regard of his professional brethren at various periods afterwards. He was a great admirer of John Hunter, adopting his views of the circulation of the blood, and of inflammation. His admiration for his genius even led him to fall into the error of that distinguished man, in supposing that the virus of syphilis and gonorrhœa were the same. He used the lancet with boldness and energy in inflammatory disease. He was most remarkable, however, for his success in the treatment of pulmonary affections. He was in the habit always of using percussion, and introduced the stethescope into his practice, in the use of which he became eminently skilled, as soon as its important discovery was promulgated to the world.

Dr. Donaldson was remarkable for the delicacy and courtesy of his professional intercourse. The undivided and profound sentiment of regret at his loss, which filled the bosom of his brethren, is the best proof of his justice and urbanity. The high-souled dignity of his character lifted him far above those arts, which are sometimes to be found tarnishing the purity of each of the professions. He continued to be a student, even amidst the hurry of most multiplied engagements, and was always a profound thinker. With a memory of remarkable tenacity, and habits of the closest observation, his mind seemed to be a store-house of knowledge.

Unfortunately, Dr. Donaldson wrote nothing but a tract on epidemics, which was most highly spoken of by those who heard it.

The manuscript has been lost. He united so much modesty with his abilities that he seemed to shrink from appearing before the public as an author.

The assiduous labors of his profession, during thirty years of active service, making inroads on his health, alas too perceptible, admonished him of the propriety of sharing his duties. In 1830, he associated with himself, Dr. Richard S. Stewart, whose qualifications as a physician, and whose character as a gentleman, have placed him in the front rank of the Baltimore profession.

Repeated acute attacks of pulmonary inflammation hastened now, but too rapidly, his decline. Remarkably patient of suffering, the voice of complaint was never heard from his lips. Even while ready to sink beneath debility and pain, he would struggle forth at the anxious call of those who had long experienced the benefit of his skill.

Year after year, however, confined him more and more, until on the 14th of January, 1835, he expired in the bosom of his family, in the 57th year of his age.

The gratitude of those they serve is undoubtedly the greatest return to medical men. No paltry pecuniary reward can compensate the services of those, who devote their lives to the relief of suffering. The deep and pervading feeling of sorrow, which equally darkened the halls of the great and the hamlets of the poor, on the death of the subject of this memoir, speaks equally for their hearts and the kind benevolence which was ever the handmaid of his skill.

His enthusiasm in his profession was strikingly manifested by a circumstance which occurred in the spring of 1831. Having been confined to his house during the winter months, as soon as the weather would permit, he expressed to his friend Dr. Turnbull, of whose anatomical skill he entertained the highest opinion, his desire to witness once more an entire course of dissection. His wish was gladly complied with, and their investigations extended far into the summer. It was more gratifying to behold the pleasure and zeal which animated Dr. Donaldson, than even the beautiful picture of parts displayed by the unequalled knife of Dr. Turnbull. The muscular, the vascular, and the nervous systems, with the viscera, successively engaged their attention. The clearness of the demonstrations on the one hand, and the learned

observations of Dr. Donaldson on the other, made an impression on those who had the good fortune to be present, which time can never efface. His example should lead medical men to continue the pursuit of their noble science, as long as life itself lasts, and furnishes a severe reproof to those (we fear too many,) who, considering the knowledge acquired in the schools amply sufficient, soon fall to the level of mere empirics.

It was with feelings of the deepest emotion that the writer of this memoir beheld, on this occasion, the personation of a *true* lover of the science of medicine. Both the actors have passed away, and while friendship hallows the memory of each, the goodness and greatness of Dr. Donaldson, his long and distinguished labors in his profession, and his zeal in its pursuit, have left in the bosoms of his brethren a profound sentiment of veneration for his talents and love for his virtues.

Dr. Donaldson was for many years a member of the Church of England. He was indeed a good Christian. No ostentatious display characterized his unobtrusive piety. Cheerful in his disposition and liberal in his views, he presented none of that austere severity which, while it generally cloaks hypocrisy, repels from the benignant embraces of religion the young and the gay. He was truly a good man.

SKETCH OF DR. PHYSICK.

By S. Collins, *M.D. of Baltimore.*

With the exception of Dr. Rush, no medical man of this country has died, whose departure produced such deep sensation, as that of the late Dr. Physick. Occupying, during a long succession of years, a pre-eminent position in the most celebrated medical school of the country—regarded as the Father of American Surgery, and scarcely less distinguished as a Physician—his character, his talents and his fame became the property of the profession and of the nation. Students from all parts of the country sought the University which he adorned; and the victims of the various diseases which belong to our race, when other hopes had failed, turned their steps to the abode of this distinguished man, with a devotion almost approaching that which directs the Osmanlie to the tomb of the Prophet.

Dr. Physick passed four years in Europe, engaged in the completion of his medical education, and was a favorite pupil of the celebrated Hunter—the inestimable benefits of the association to the pupil, being repaid by the honor he conferred on the master. He returned to this country in 1792, settled in Philadelphia, and took a distinguished part in the treatment of the yellow fever, which in the following year, devastated that city. Enthusiastic devotion to his profession, with favorable opportunities for the exercise of talents, gave him the character which, in 1805, elevated him to the chair of Surgery in the University of Pennsylvania. It is not necessary for me to say with what ability he discharged the duties of that station. When the writer of this rapid sketch pursued his medical studies in Philadelphia, Dr. Physick had been transferred from the chair of Surgery to that of Anatomy. It was unfortunate for him that, with the infirmities of advancing life, such a transfer should have been made. He was most passionately devoted to surgery—and all the enthusiasm of his character must have been displayed when lecturing on that subject. He had not been accustomed to the dry and minute details of anatomy. The contrast in his manner, on the two subjects, was vividly presented

to those who attended his courses when Professor of Anatomy. At the close of his lectures he often expressed his views on the surgical diseases of the parts in the demonstration of which he had been engaged—and then he was eloquent. The kindling of the eye, and the fixedness of the features, shewed he was treating a subject which called forth his powers. No part of his lectures made half the impression on his class as these incidental remarks on surgery.

Several years before his death he was made Emeritus Professor of Anatomy and Surgery, having retired from the active duties of his chair and profession, and did not attend to patients except at his office. He closed his brilliant surgical operations by the removal of a cataract—an appropriate termination of the professional career of one who had contributed so much to enlighten the world, when he relieved him who was suffering the privation so feelingly described, because personally felt, by the great master of English epic, as "wisdom at one entrance quite shut out." Had he died at the zenith of his fame and usefulness, the impression produced by his exit would have been increased. The associations connected with the fall of the vigorous and wide-spreading oak—the pride of the forest—differ from those which arise when the fury of the tempest prostrates the sapless trunk, with its withered branches.

Dr. Physick had a mind peculiarly adapted to the successful prosecution of his profession. Other medical men have attained great eminence and popularity by having vivid imagination, forcible elocution, and other captivating powers, combined with solid professional attainments. But when they stand by the bed-side, and engage in the investigation of the hidden causes of disease, these qualities of the mind often become the "ignes fatui" by which they are led astray. He had no imagination—no various learning. I do not recollect, during the three winters I attended his lectures, ever to have heard him illustrate the subject he was teaching by drawing on other branches of science. He did not attempt oratorical display. A perfect master of the point he wished to impress, he used the fewest words—and his style, in an eminent degree, was simple, chaste and clear. His mind was patient of labor; accurate in investigation. He made his profession the object of his intellectual love. Like the traveller having a long journey before him, which he is resolved to accomplish, he did not turn

aside to wander over beautiful parterres and pluck sweet flowers. His mode of reasoning, in his inquiries after truth, was the inductive philosophy of Bacon—a philosophy which teaches as a great principle, that in all the investigations of nature, the only true guides to just theory are experiment and observation. That is the only true mode—the one to which we owe the gigantic strides science and the arts have made, since 1561—a year illustrated by the birth of that Prince of Philosophers. They who have had the privilege of standing by Dr. Physick, when investigating the disease of his patient, must have been forcibly impressed by his method. He did not permit him to give a long and unsatisfactory description of his case, but asked him questions. He pressed him on points where he supposed the truth was to be found. His mind was eminently practical. He did not aim at the support of preconceived theories—he sought after facts. I have said he had no imagination; but I have not said he had no enthusiasm. He had genius, and of necessity enthusiasm. What is genius but susceptibility of emotion?

I have observed that the mind of Dr. Physick was practical—and this was the true source of his great eminence—the reason why the value of the contributions he has made to medical science has not been destroyed by time. In this intellectual endowment he formed a striking contrast with the most popular medical teacher this country has ever produced. Dr. Rush had a bold, energetic mind—was full of enthusiasm—confident of his great powers, and possessed, in a remarkable degree, the ability to inspire his pupils with a conviction of the truth of his doctrines—with a propagandist spirit which disseminated them through all parts of the country. But he was a man of theories; and exerted all his powers for their support. A quarter of a century has elapsed since his death—yet long before the close of that brief period, his doctrines had ceased to have any influence with the profession. His fame remains, and will long remain, as a brilliant example of the control a man of genius exercises over all minds that come within his influence. He displayed the same order of genius that enables the warrior to inspire his soldiers with the assurance of victory; or the statesman to impart his own convictions to admiring senates.

Dr. Physick was remarkable for simplicity of character. He displayed no arrogance—no self-conceit on account of his

acknowledged pre-eminence—no contempt for those beneath him. True greatness is always united with simplicity. Wealth, honor, station, attainment, genius, do not affect the bearing of that man who is truly great and noble. He has feelings of warm affection for all his race, and is humbled, rather than exalted, when he considers how many blessings heaven has bestowed on one who is so unworthy. The possession of knowledge does not inflate the truly great man with high opinions of himself. It serves to shew him he is standing on the shore of a boundless ocean, on whose bosom he may sail, but the extent of which he can never explore.

A very natural transition from the contemplation of this simple nobility of his character, is to consider him as a believer in divine revelation. His integrity and morality were always remarkable; but it was towards the close of his life, that his enquiries on the subject of the future condition of man became more apparent and urgent. The fervor of youth and the ardent pursuit of ambitious prospects may long divert man from the consideration of his other home; but, when the passions of his nature begin to expire—when the possession of wealth and honor has failed to confer happiness; when incipient decay admonishes man that the beautiful temple, in which his spirit dwells, is tending to dissolution, it is then "the divinity that stirs within him" prompts him to inquire into his capabilities and his destiny. What consolation can man enjoy, amidst changes and sorrows and decays, unless he considers "there is one broad sky over all the world; and, whether it be blue or cloudy, the same heaven is beyond it."

It has been said that the pursuit of medical science has an irreligious tendency; the habit of tracing the connection of parts, in producing results, leading to a forgetfulness of the Great First Cause. The charge cannot be true. It is contrary to all the established laws which control the human mind, in deriving conclusions from testimony. In all ages of the world, nations have been taught the existence of *a* God by the contemplation of his works. I do not say they have been taught the existence of *the* God; possessed of the attributes of the God of the Bible. Such is not the fact. But, although the divinity they worship be made of wood or stone, it confirms the argument. The profession furnishes many illustrious names, besides Boerhaave and Physick, in refutation of the charge.

The personal appearance of Dr. Physick was very imposing. I have known men more majestic in bearing—more commanding in figure—who trod upon the earth with a step more firm and proud, as if they felt they were born to control its destinies. But that classically formed head and face; that eye which reposed in calm, almost melancholy expression, unless when lighted up with intellectual fire; those lips which seldom smiled; but when they did, were surpassed in expression only by the smile of woman. Who does not wish some Praxiteles had lived in his day, that he might have chiselled those features in Parian marble, and thus convey them down to all coming time? Often, when I have called to recollection the noble features of this great man, I have thought of the eulogy pronounced on the Baron Cuvier by his wife—the noblest eulogy ever pronounced by a wife on the character of her husband. When, after his death, his portrait was presented to her and she was asked if it resembled him, "It is he," she exclaimed, "It is he; it is his noble, pure and elevated mind; often melancholy; always benevolent and calm, like real goodness. It is the great man passing over this earth, and knowing that there is something beyond."

Observations on the Pathology of the Human System, when laboring under the disease denominated Diabetes Mellitus—*By* Maxwell McDowell, *M.D. of Baltimore.*

Doctor Cullen, in his system of Nosology, has placed diabetes as a genus of diseases under his order spasmi. Under the genus diabetes he has designated two species—diabetes mellitus with "urine of the odor, color and taste of honey"—and 2d, diabetes "with limpid urine, not sweet." The following observations embrace the first species, or diabetes mellitus.

Dr. Cullen devotes but three pages in his "first lines" to the consideration of this disease. He says that, though he believes the disease has been cured, yet he observes—"In all the instances of this disease which I myself have seen, and in several others of which I have been informed, no cure of it has been made in Scotland, though many instances of it have occurred, and in most of them the remedies recommended by authors have been diligently employed." Such is the statement which the justly celebrated Dr. Cullen has given, with respect to diabetes mellitus, as that disease appeared in Scotland in his day. Dr. Cullen therefore concludes, that as the proximate cause of diabetes was so little known, he could not propose any rational mode of cure in the disease. Many efforts have been made by physicians, since Doctor Cullen advanced the foregoing sentiment, to develope the pathology of the human system when laboring under this intricate and formidable disease; and we may yet, perhaps, with great propriety, in the language of Dr. Cullen, say that the proximate cause of diabetes mellitus "is so little known," and is, therefore, wrapt in considerable obscurity. Our design is to examine a few of these pathological theories which have been given to the medical world. A correct pathological knowledge of a disease must tend to the adoption of a more successful plan of treatment for its removal. Dr. Rollo considered the stomach to be the original and primary seat of the morbid action of the disease denominated diabetes mellitus. "On the whole, therefore," Dr. Rollo observes, "we repeat, that the proximate cause of diabetes mellitus, seems to us to consist of a morbidly increased action of the stomach, with consequent secre-

tion and vitiation of the gastric fluid, marked by an eagerness of appetite and acidity. The direct effects of which are, the formation or evolution of saccarine matter, with a certain defect of assimilation, preventing the healthy combinations, and exciting the immediate separation of the imperfectly formed chyle, by the kidneys. The more remote consequences will be, such changes in the natural structure of the parts, as may prevent the entire restoration of health. That the altered appearances which have been found in the dissections of those who have died of the diabetes mellitus, are merely the effects of the disease, and probably only in certain constitutions, is evident from the cases of Dr. Cawley and Dr. Pearson, but more remarkably from that of Mr. Thomas." Such is the pathological foundation which Dr. Rollo has laid to support the plan of treatment which he adopted for the removal of the disease. The doctor confined his patients to a rigid use of animal food, for the purpose of preventing the formation of saccharine matter in the stomach. Hepatized ammonia was the medicine that the doctor principally relied on, to effect the removal of the "morbidly increased action of the stomach," which he considered a characteristic symptom of diabetes mellitus. It appears that the disease was removed in the case of Capt. Meredith. Dr. Rolla's plan of treating the disease, however, has been strictly enforced in many cases, under the direction of different physicians without such success as inspired a confidence in the remedy. Even if we admit that Dr. Rollo is correct in his pathological doctrine, that the "immediate cause of diabetes mellitus is a morbid condition of the stomach, forming or evolving from vegetable substances saccharine matter, which is quickly separated as a foreign body, by the kidneys," we cannot perceive how the pathology of the disease is to be explained from this source. The foreign body which Dr. Rollo says is produced by a "*morbid*" action of the stomach, in this disease, must enter and become intimately mixed with the circulating mass of blood. It is evident, therefore, that a comparatively small portion of this foreign body will be conveyed to the kidneys, through the emulgent arteries. But in a minute and extensive post mortem examination of the body of a patient, who had died of this disease, Dr. Baillie ascertained that the stomach exhibited a perfectly healthful condition of organic structure. This examination of Dr. Baillie, in my opinion, cuts

up the pathological theory of Dr. Rollo by the roots. Dr. Lubbock, admitting that the saccharine quality of the urine is characteristic of the disease under consideration, undertakes to account for it by the retention, in the patient's system, of carbonic acid, in consequence of a suppressed perspiration. Now, we cannot admit the doctor's theory as a satisfactory explanation of the saccharine quality of the fluid discharged, per urethram, by a diabetic patient. For, in the first place, we alledge that carbonic acid is not retained in the system of a diabetic patient in consequence of a suppressed perspiration; inasmuch as the carbonic acid which the experiments of Cruikshank and Abernethy ascertained to be discharged from the system daily, with the perspirable matter, is formed upon the *surface of the body*, by the action of atmospheric oxygen upon the carbon of the blood, contained in the cutaneous capillary blood-vessels. If the suppressed perspiration, in a diabetic patient, *could* prevent the discharge of carbonic acid, the consequence would be a retention of *carbon* in the blood of the patient. But *carbon alone* cannot produce *saccharine* matter. But, in the second place, admitting that carbonic acid is retained in the system of a diabetic patient, in consequence of a suppressed perspiration, according to the theory of Dr. Lubbock, it would not account for the saccharine quality of the urinary discharge; because a very diminutive portion of this supposed acid would be conveyed to the kidneys, where the saccharine matter is formed in the opinion of some pathologists. We are, therefore, induced to conclude that the theory of Dr. Lubbock will not account for the saccharine quality of the fluid which is discharged by a diabetic patient, *per urethram*. Dr. Lubbock considers the emaciation of the patient as a leading feature of diabetes; but, in our opinion, the doctor is not more successful in explaining the cause of the emaciation, than he was in accounting for the saccharine quality of the liquid discharged by the patient. We consider the emaciation of a diabetic patient as the prominent *effect* of the saccharine quality of the fluid which he discharges *per urethram*.

On the 19th of January, 1804, we were requested to visit a patient, seventeen years of age, about seventeen miles from York, in Pennsylvania, the town in which we then resided. Upon examining our patient we ascertained that he was laboring under a well marked case of diabetes mellitus. His emaciation was great,

his appetite excessive, and he lived almost entirely upon *animal food*, as that kind of aliment was most agreeable to his palate. Thus we ascertained that our patient, *of choice*, lived upon *animal food*, an article of diet that Dr. Rollo considered *indispensable* in the therapeutic treatment of the disease. We had an opportunity of witnessing this fact, as in several of our visits we dined with the family and had ocular demonstration of the quantity and quality of the animal food which he eat to satisfy his *craving* appetite. We also often witnessed the exercise of parental, persuasive, and authoritative efforts to induce their son to take some vegetable with his animal food. He could not, however, be prevailed upon to comply with the request of his parents; for, although we have seen him put a *small* portion of bread in his mouth when desired to do so, yet when their attention was withdrawn from him, his bread was permitted to lie *untouched* beside his plate. The reader will bear in mind that the pathological description of the disease under consideration, which we give, has exclusive reference to our patient. We do not, for a moment, suppose that the same train of symptoms will appear in every case of diabetes mellitus. The skin of our patient was dry, the cuticle being scurfy. His thirst was great. The mind of our patient labored under the morbid irritability which is characteristic of his disease. From the history which he was able to give of his disease, it appeared that the emaciation was gradual in its commencement and that he dated it from a severe wetting which he received by a chilling rain, the preceding autumn. We decided upon a mercurial salivation as the only remedy that, according to the view which we had then taken of the disease, promised any relief to our patient. Accordingly we put our patient upon the use of small portions of calomel with a few drops of laudanum at bedtime. This plan was continued for a considerable time, without producing any mercurial action in the glands of the mouth, although the calomel had no evacuating operation upon the alimentary canal. We laid aside the calomel and prescribed the tincture of cantharides, with a few drops of laudanum at bedtime. We directed the tinct. of cantharides to be increased in the dose daily, a few drops, till a pain in the bowels, or a strangury, evinced that the tincture was given to a sufficient extent to test its curative powers upon our patient's disease. The tincture of cantharides was persisted in for at least

three weeks, without causing the system of our patient to acknowledge its action in any perceivable manner, notwithstanding the dose had been increased a few drops daily. We had full confidence in the tincture that we used, as we prepared it carefully from cantharides of the first quality.

Again we were requested to visit our patient, and upon examination could not perceive any favorable change in the action of his formidable disease. Foiled in every effort which had been made to arrest the progress of our patient's disease, we determined to try the effects of blood-letting, and immediately drew eight ounces of blood from his arm, in order to discover how his system would bear its loss. Encouraged by the experiment, we at once decided upon the plan of persevering in the use of the lancet, as long as the safety of our patient's life would warrant. For this purpose we prevailed upon his parents to place him near our residence, that we might have an opportunity of visiting him daily. Boarding was, therefore, procured for my patient at a farm house on the environs of York town. In three weeks, I took *seventy-two* ounces of blood from my patient, at five bleedings. I indulged him in the use of a mild diet, though not rigidly antiphlogistic. The bleeding produced a very flattering change in the action of my patient's disease. The quantity of fluid discharged, *per urethram*, was diminished *one half*. His skin, which had for many months been an entire stranger to perspiration, had now assumed a soft, moist and flexible appearance, and the cuticle was every where becoming smooth and free from scales. Under these encouraging circumstances my patient formed an unconquerable desire to return home. All my endeavors to prevail upon him to remain any longer under my care, were unavailing. His parents, to my regret, indulged his desire of returning home. Thus I was deprived of an opportunity of giving a fair trial to a plan of treatment, which I then thought bid fair to effect a cure of a formidable disease. When my patient left me, his pulse still justified a perseverance in the use of the lancet. The prevalence of an epidemic, at the time my patient left me, put it out of my power to attend to him at the distance of seventeen miles. In a few months he fell a victim to his disease.

When I determined to use the lancet in my patient's disease, I did not know that it had ever been employed in diabetes mellitus. I had not, at that time, read Dr. Rollo's treatise on the disease.

Blood-letting, however, did not form a part of the doctor's plan of treating diabetes. It is very evident that the very small portion of blood which he drew from his patient, Capt. Meredith, at two bleedings, was for the purpose of enabling him to investigate the pathology of the disease.

Doctor Watts, of Glasgow, published several cures of this disease, in 1808, in which the lancet was the most prominent remedy in his plan of treatment. Dr. Watts used the lancet in the case of his patient, Stephenson, under circumstances of the most discouraging kind. "The state of the pulse," says the doctor, "the dissolved appearance of the blood, and the emaciation of the patient, by no means indicate the propriety of blood-letting. The symptoms, however, have certainly given way a little, or at all events there is less hazard in the practice than is generally apprehended. It is on these grounds, and the intractable nature of the disease, that the farther prosecution of the plan of treatment can be justified." The doctor, in further describing the pathological condition of his patient Stephenson's case, states that "the pulse was slow, feeble, and not altogether regular—his strength and spirits were almost gone—the lower extremities had been edematous to the haunches, and were always cold and lifeless. When newly drawn, the blood was extremely dark; on cooling, the crassamentum was found to be as black as pitch, and totally devoid of tenacity. These were sufficient to have deterred me from trying this practice, had I not known from former experience, that many of them were ill founded." Dr. Watts did persevere in the use of the lancet, in his patient Stephenson's case, and the happy result was, the restoration of the sufferer to a complete state of health.

When I became acquainted with Dr. Watts' cases of diabetes mellites, after my removal to this city, I more deeply regretted my disappointment in not being permitted to continue my plan of treatment, in my patient's case. My patient was a very intelligent, observant youth, and was fully sensible of the improvement of his condition, under my treatment, and I have no doubt but he would have allowed me to continue the use of the lancet to any extent that my judgement would have directed, had it not been for the *officious* interference of some *gossips*, who produced an alarm in his mind, on being bled so much, in his emaciated con-

dition. To bleed a patient freely and *repeatedly*, in the condition in which my patient was placed, was certainly calculated to meet the disapprobation of those persons who are unacquainted with the animal economy, and are not observant of its functions. For my patient was *literally* a walking *skeleton*. I have never seen so *emaciated a human being* to possess the powers of *locomotion*. My patient, however, never possessed a pulse so discouraging to the use of the lancet, as was the pulse of Dr. Watts' patient, Stephenson, or that of the young student of the college of Glasgow. The blood of my patient did not exhibit so great a degree of morbid condition as was manifested in the blood of Dr. Watts' patient.

The encouraging effects of the use of the lancet in my patient's case, induced me to decide upon giving that remedy a fair trial, should another case of diabetes mellitus come under my care. A perusal of the cases of Dr. Watts, after my removal to this city, strengthened my decision in favor of the lancet as a *prominent* remedy in the cure of this formidable disease. I did not meet with a second case of diabetes mellitus, till the 1st of March, 1832, when I commenced my tour of duty as attending physician to the Baltimore Infirmary. The patient was a sailor, and he was put under the treatment recommended by Dr. Rollo, by my predecessor, as attending physician to the Infirmary, Professor Potter. As I considered the treatment adopted by my colleague had not been continued long enough to give it a fair trial, I made no change when I took charge of the patient. In a short time the patient was seized with varioloid, and was removed from the Infirmary to the Baltimore Hospital. I heard nothing respecting the issue of the case till the winter of 1833, when Mr. Smith, a member of my class, informed me that the patient had died, not of diabetes, but in consequence of a fall which he had sustained. The occurrence of varioloid caused the removal of this diabetic patient from under my care, and deprived me of an opportunity of instituting my plan of treatment for his disease. I do not undertake to say that I have formed a correct pathology of diabetes mellitus; but I have formed an opinion upon the subject—an opinion bottomed upon an attentive examination of my patient's condition.

And here let me request the reader to recollect what I stated in a former part of this communication—any pathological opinions that I advance, have *exclusive* reference to the only case of dia-

betes mellitus which I have had under treatment.* For I am far from supposing that every case of the disease will exhibit the same assemblage of pathological symptoms. Dr. Lubbock considered that "it is the emaciation that claims the first attention of the physician, for without the removal of this symptom, neither the reduction of the urine, the alteration of its quality, nor the appearance of considerable remaining muscular power will prove that the disease has yielded to any curative process." Now, I view the *emaciation* of the patient as the prominent *effect*, or *consequence*, of the *saccharine* quality of the urine, and if this characteristic quality of the urine is completely removed, the emaciation will be arrested in its progress. In my opinion, therefore, the *saccharine* quality of the urine which ought to go to the support of the bodily system, in its integrity of size and dimensions, is thrown out, per urethram, by the pathological action of some part of the corporeal structure. We, therefore, differ in opinion with Dr. Lubbock, and consider the *saccharine* quality of the urine as intimately connected with the emaciation of a diabetic patient. When I saw my patient take an unusual quantity of aliment of the most nutritious kind—when I saw that his stomach bore with unruffled calmness, this excessive amount of nutriment—when I saw the sensorium unclouded, though so heavily drawn upon by the stomach for sensorial influence—when I saw an unchanged action in the arterial system—when I saw a completely elaborated fœcal matter discharged from the alimentary canal—when I was informed by my patient that he enjoyed sound and refreshing sleep, which was only interrupted by calls to unload his bladder, I could not avoid concluding that my patient's digestive organs produced an excessive quantity of chyle—a very diminutive portion of which per-

* In a preceding part of this communication I have stated that I saw a *second* case of diabetes mellitus, in the Baltimore Infirmary. But I do not consider that *I had* that case *under treatment*. The patient was admitted into the Infirmary about *two weeks* before the termination of my predecessor, Professor Potter's tour of duty, as attending physician. When the case came under my view, I found that my colleague had prescribed the plan of treatment recommended by Dr. Rollo. Considering that the treatment had not been continued long enough to test its utility, I made no change. In *less than a week* the patient became covered with such an extensive crop of *varioloid pustules*, that he was removed from the Infirmary. I never had *that patient under treatment* and can with propriety say, that I have had *only one case* of diabetes mellitus under *therapeutic* management.

formed the round of the pulmonic circulation. The lungs of my patient were perfectly sound. Their functions, therefore, were correctly performed. And here I must say that the pathological doctrine of Dr. Cullen is completely prostrated, in my opinion. You will recollect that the doctor considered the cause of diabetes to be, a defect in the "assimilating powers." By the terms "assimilating powers," I suppose the doctor meant that finishing part of the digestive process, in which the chyle is exposed to the influence of atmospheric air, in its passage through the pulmonic circulation. I have expressed it as my opinion, that a very diminutive portion of chyle passed through the lungs of my patient. Indeed I am disposed to conclude, from an attentive examination of my patient's case, that not a *particle* of chyle entered his pulmonic circulation after the emaciating process was completely established. Hence the *extreme degree* of emaciation in his system before *death* closed the scene. The only medicine that I gave to my patient, after I commenced the use of the lancet, was a tonic astringent powder, composed of equal parts of the powder of angustura bark and powdered sulph. alumin. Of this tonic and astringent powder, he took a small portion three times in the twenty-four hours. The reader will observe, that in speaking of the fluid discharged by my patient, per urethram, I have designated it by the term *urine*, a word uniformly used by those who have described the disease under consideration. That the fluid discharged by my patient contained urine, I have no doubt; for I had every reason to believe that his kidneys were in a perfectly healthful condition. It is not correct, in my opinion, to denominate a fluid urine, which neither possesses the *smell* nor *taste* of that peculiar secretion. *Urine*, therefore, formed a *very small* portion of the fluid which my patient evacuated, *per urethram*.

Baltimore, January 30th, 1840.

Case of Ozæna, accompanied by frequent paroxysms of Neuralgia Faciei, cured by the Extraction of a Tooth—By Chapin A. Harris, *M.D. Dentist, Baltimore.*

Mr. S——. a resident of a neighboring county, of a full habit, and slightly disposed to scorbutus, had, for a little more than two years, been the subject of an obstinate and distressing affection of the left nasal fossa, and of frequent attacks of pain, which he represented as being, at times, almost excruciating—commencing immediately over the first left superior molaris, thence shooting back to the angle of the jaw, then to the ala of the nose, inner angle of the eye, and not unfrequently to the top of the head. Ulceration had taken place in the mucous membrane of the affected nostril, and a thin fetid matter, occasionally streaked with pus and blood, was almost constantly discharged, excoriating the parts with which it came in contact. The cavity of the nostril had become so much closed by the thickening of its membranes, that the passage of air through it was prevented; the external integuments had assumed a dark florid appearance, and become considerably tumefied and sensitive to the touch.

His teeth having been suspected, though to all appearance perfectly sound, as having some agency in the production of the neuralgic affection, he was directed to a dentist to have them examined, but as none of them exhibited any signs of decay, it was thought to be dependent upon some other cause. Accordingly the remedial means usually employed for this, as well as those for the other affection under which he was laboring, were prescribed; but from their use, although continued for several months, and under a variety of modifications, he derived no benefit.

His complaints becoming more and more aggravated, he at length became apprehensive as to their result, and determined by the advice of his friends, to visit several of the medicinal springs in Virginia. At one of these, he met with an eminent medical gentleman from one of the northern cities, whom he consulted, but neither from his prescription nor the use of the waters of any of the springs that he visited, did he obtain the slightest relief, and after remaining from home two months, he returned in a state almost bordering on despair.

To add to his affliction, he about this time, began to be annoyed with a constant pain in the region of the antrum of the affected side. This, in connection with a soreness in a tooth immediately beneath, which he had felt throughout the whole course of his protracted and complicated disease, but which had not until now been sufficiently great to attract particular observation, soon led to the discovery of the cause both of the nasal and neuralgic affections, and also to the means by which they were finally cured. The pain in his jaw continuing to increase, and from its resemblance to tooth ache, he was induced, September 9th, 1839, to apply to me for advice. From the description which he gave of it and the other circumstances connected with the case, the belief that the antrum was diseased, and that a morbid condition of some one or more of his teeth or their sockets, had been chiefly instrumental in its production, at once forced itself upon me. With a view of satisfying myself more fully on this point, I gave his mouth a careful examination. His teeth, at least so far as their crowns were concerned, were all free from disease, but the socket of the first left superior molaris, which was that of the sensitive tooth, was considerably wasted—the tooth itself, particularly its outer and posterior surfaces, thickly coated with tartar, slightly loosened and partially protruded from the jaw; whilst the surrounding gum was inflamed and spongy. The tooth having thus, as it would seem, from some cause or other, become obnoxious to the parts within which it was contained, and as it had no antagonist, its removal appeared to constitute the first and principal indication of cure. To this, upon its being advised, he readily submitted. The operation was followed by a sudden gush of thin fetid matter from the antrum, which communicated with the socket of the tooth by an opening sufficiently large to admit of the easy introduction of the end of a small goose quill, and a subsidence of pain. The cause of his complicated malady was now revealed. The roots of the tooth, as may be seen from the following drawing, which is an exact representation of the tooth, were found to be greatly enlarged by exostosis.

The intervening transverse and longitudinal alveolar walls had been destroyed, and the place which they had formerly occupied filled with fungus. The edges of the surrounding wall were considerably wasted, and its surface interiorly, rough and enlarged.

A strong solution of *argentum nitratum* having been applied to the diseased socket, by means of a camel's hair pencil, and the antrum syringed out with diluted tinct. myrrh, which last was directed to be repeated twice a day as long as the opening into that cavity should remain unclosed, the balance of the cure was entrusted to the restorative energies of the economy.

The following day he left the city, and I heard no more of him for six weeks; at the expiration of which time he again visited it, and called to inform me of the amendment that had taken place in his condition. He was now able to breath through his left nostril almost as freely as the right—the discharge from it was greatly diminished and of a more healthy character. He had had but one return of his neuralgic affection, which occurred the fourth day after the removal of the tooth, and was less severe than any of the former paroxysms. The opening into the antrum had closed, and the socket was rapidly filling with healthy granulation.

December 3d, I again had the satisfaction of seeing him and of being informed that every vestige of his nasal and neuralgic affections had disappeared.

REMARKS.

The circumstances connected with the history of the foregoing case would seem to justify the conclusion, that the irritation produced by the enlargement of the roots of the tooth, had given rise to a morbid excitement in the mucous membrane of the antrum maxillary—that this had extended to that of the left nostril, where the parts being more exposed to external irritating agents, had taken on a new and more aggravated form of disease; and that the neuralgia was the result of the irritation in the nose, antrum or socket, and most probably the last. How far the deposition of tartar that had formed on the tooth may have been accessory to the exostosis, is a question perhaps not easily solved. That it might produce such an effect can very readily be conceived, for when we take into consideration the morbid influence the presence of this substance frequently exerts upon the secretions of the mouth,

the gums and alveolar processes, it will not appear at all strange that it should give rise to this. The disease being dependent on inflammation of the periostia of the roots of the teeth, may be brought on, when favored by a constitutional tendency, by any thing producing preternatural excitement in these membranes, and that salivary calculus often does this, is a fully recognized axiom in dental pathology. But how far it may have been concerned, either primarily or secondarily, in its production in this instance, I will not take upon myself to determine, inasmuch as there was one other circumstance connected with the history of the case, that may have been the primary cause of the whole disturbance. That was, the want of an opposing tooth against which for this to act; and it may be well here to remark, that whenever this happens, especially to a superior molaris, and in the present case, it had existed, as I was informed, for about seven years, the surrounding gum is apt to become inflamed, the periostium of its roots morbidly excited, and the socket to waste and sometimes to become gradually filled with ossific depositions,* as though nature, conscious that the organ was of no further use, exerted her energies to expel it from the jaw. This tendency, every dentist of observation and experience must have noticed, and Mr. Koecker, a distinguished European practitioner, in accordance with what would thus seem to be a law of the economy, recommends the extraction of all such teeth; but, as there are frequent instances where, by proper attention to their cleanliness, they may be permitted to remain with impunity, this advice should not always be followed.

* The doctrine that teeth, after having lost their antagonists, are sometimes partially displaced by the gradual filling up of their sockets at the bottom, with ossific matter is denied by some; but the writer of this has met with several instances, as was clearly ascertained after the extraction of the teeth, where depositions of bone had actually taken place, and in five or six cases, in considerable quantities. He has also conversed with several of his professional brethren, who say they have observed the same thing, and among the number, Dr. H. H. Hayden, of this city, a gentleman whose scientific attainments and professional acumen would render any deception in the matter altogether improbable.

The establishing of this fact, though somewhat irrelevant to the subject under discussion, was deemed necessary, in order to show the morbid effects that are frequently induced in the gum and socket of a superior molaris, by the loss of its antagonist.

Plate No. 1.

Plate No. 2.

Case of Immobility of the Jaw—successfully treated by James Higgins, *M.D. West River, Md.*

Some time in the early part of last June, I was requested to examine, in consultation, a negro boy of about twelve years of age, who, for more than three years, had been laboring under an immobility of the lower jaw.

The physician who had previously attended the case, gave me the following account of its rise and progress. During the autumn of 1836, the child had suffered from a long and severe attack of remittent fever, in the course of treatment for which, it was thought necessary to produce ptyalism; owing to inattention and neglect on the part of his mother, ulceration and sloughing of the cheek and gums of the left side supervened. The first stage of this destructive process was marked by a dusky vesicle, surrounded by an angry livid appearance, which gradually extended, involving in its ravages the cheek, as far as the second molar tooth; the gums were also extensively implicated, and nearly all the teeth were lost from the incisors to the angle of the jaw—none being left below, and only the cuspidatus and two molars above, these latter loosed from their bony sockets, and adhering only slightly to the gums.

This state of things continued progressing for four weeks, when an effort at reparation commenced, and after the lapse of nearly two months, the process of cicatrization was completed, leaving adhesions between the upper and lower jaw, as well as between the cheek and gums. A gradual approximation of the jaws took place during the healing process, which when it was completed, left them so close that nutriment could only be taken in a liquid form, introduced with difficulty where the teeth were wanting in front. From a deficiency of nutriment the patient had become very much emaciated; his general health suffered extensively, his articulation was rendered so indistinct that he could not be understood, and his life promised to be a burthen, both to himself and his proprietor, unless something could be done to relieve his unfortunate condition.

On examining the case, I found the adhesions to extend from the cuspidatus of the left side to the angle of the jaw—the superior cuspidatus seemed to have attained nearly double its natural length, and projected downwards, as seen in Plate No. 1. The only teeth left on this side, were two molars of the upper jaw, which were only slightly attached to the ligamentous adhesion, and could easily be moved by the fingers in every direction. The adhesion itself formed a perfect body with the gums, appeared to be rather of the nature of a ligament, than cartilaginous—was exceedingly dense and firm, and prevented entirely, any motion upwards or downwards, permitting only a lateral motion, scarcely perceptible, of from a half a line to a line. The adhesion between the cheek and gums was a firm, unyielding, attenuated cicatrix, for half the distance between the corner of the mouth and the angle of the jaw; the other portion was fleshy, and the natural condition of the parts seemed to have undergone little or no change—union, however, had taken place between this part and the gum. Considerable external deformity was produced, as may be seen by referring to Plate No. 1, which represents accurately, the condition of the patient when I first saw him. I at once proposed an operation as the only means of relief.

July 10th—In the presence of Drs. Owens, McCeeny, Welsh, and Chesley, with several other gentlemen, the operation was performed in the following manner. The patient having previously taken tr. opii, gtts. lx, was seated in a low chair, his head

being held firmly back by an assistant. An incision was commenced at the commissure of the lips, and carried back to the angle of the jaw, laying open the cheek in its whole extent. The semi-cartilaginous adhesion between the jaws was then divided by a strong convex bistoury, and the cheek was afterwards carefully dissected from the gums. A broken spatula was then introduced between the jaws, to open a way for Dr. Mott's compound lever, which, after considerable effort I succeeded in inserting, and separating to nearly their full extent the jaws. This separation was attended with a harsh grating noise, like that of tearing asunder a cartilage. The two portions of the cheek were now brought together by a sufficient number of sutures, assisted by adhesive strips; and pledgets of lint, smeared with simple cerate, were introduced between the cheek and gums, to prevent their re-union. The operation lasted in all sixty-five minutes; the little patient was exceedingly restive, and I was frequently obliged to interrupt the operation, as the assistants could not hold him still. Not more than three ounces of blood were lost, nor was it necessary to secure any vessel. Pulv. opii, gr. i, was given at bed time.

July 11th—Patient passed a good night, slight cephalalgia, thirst considerable, skin hot and dry, pulse ninety-eight, quick and slightly tense, bowels not moved for two days. ℞ Magnes. sulphat. ʒ ss. and a little soup sucked through the spout of a teapot. He complained a good deal of pain, and a sense of fatigue at the angle of each jaw—Dr. Mott's lever which had slipped, was withdrawn, and its place supplied by a wedge of soft wood.

July 12th—Rested well last night—the medicine operated three times, pulse ninety, slightly tense, no headache, no thirst, skin hot and dry. ℞ Neutral mixture, table spoonful every three hours.

July 13th—Removed the outer dressings—cheek looks well, very little tumefaction or suppuration, the greater part has united by first intention, patient makes no complaint.

From this time until July 28th, when I ceased visiting the patient regularly, his general health continued to improve, and the wound to heal kindly, no accident occurring to interfere with the progress of cicatrization. And when I saw him last, in the early part of December, he had almost perfect motion of his jaw, eat every thing with the greatest facility and enunciated very dis-

tinctly. Scarcely any deformity was left as may be seen by the representation, Plate No. 2, taken at this time.

I first thought of removing the external cicatrix, and supplying its place by fresh integument from the neck; subsequently I deemed it more advisable to remove it and extend the skin from the neck and face; this was done, and the result was perfectly satisfactory.

It will be seen that I followed, as nearly as the circumstances of the case would admit, the course adopted by Dr. Mott, in a case published in the American Journal for November, 1831. A case is published in the same number, by Jesse W. Mighels, M.D. of Maine, who in his operation, did not cut through the cheek, but introduced his bistoury at the angle of the mouth, and in this manner divided the morbid attachments. This he considers "an improvement worthy of notice, for independent of its saving at least some pain, there is no danger of the breaking of stitches, and slipping of adhesive straps during the cure." I am not disposed to attach much weight to this improvement; the scar on the cheek is a mere line, and this objection is fully counterbalanced by the greater facility and correctness with which the adhesions may be separated, when the cheek has been divided. Indeed Dr. Mighels, in the modification of the operation, appears to have made a virtue of necessity, as the patient positively objected to having his cheek cut through.

I think an improvement may be made on Dr. Mott's lever, by the addition of two prominences to the levers, say from four to six lines distant from their free ends. When the extremities are separated by the screw, they form a double inclined plane, towards the screw, and will slip into the patient's mouth, unless something be interposed. This defect, and it is a serious one, might be obviated in one of two ways—either first, by having two shoulders placed at a suitable distance from the ends of the lever; or secondly, by having the levers made of a solid piece of metal, of a triangular shape, instead of being bent, as now, at right angles.

West River, Md. February 1*st*, 1840.

NOTICE OF THE DAGUERREOTYPE.

By William E. A. Aikin, *M.D. Professor Chemistry and Pharmacy University of Maryland.*

The most satisfactory notice of the ingenious discovery of M. Daguerre that has appeared in our country, was presented some time since in the perishable form of an extra sheet from the office of the New York Observer. In his little volume,* M. Daguerre details most minutely the several steps to be taken, and the precautions to be observed, in order to succeed with the exceedingly delicate process he has given to the scientific world. To compel nature to depict with scrupulous fidelity her own beauties, we must accommodate our operations to her undeviating laws. To insure success, we should understand the nature of the agents we are to employ, and we should yield implicit obedience to those immutable principles which are ultimately to accomplish the task. The theory of the Daguerreotype is admitted to be obscure, and the difficulty of even approximating in our artificial operations, the regularity of nature, must also be admitted. Hence it cannot be considered strange, that among all the competitors for the honor of the discovery, the French painter has won the palm; nor is it any more strange, that even with the process we now have we should be frequently disappointed in obtaining perfect pictures. The use of imperfect or impure materials, or the slightest inattention in any of the successive stages of the work, will inevitably lead to disappointment. The importance of the discovery and the beauty of its results, will be sufficient apology for giving the details necessary to enable any one to attempt the process. And I then propose to offer some remarks on the rationale of the operation.

The material employed in our country for receiving the impression, is the thin plated sheet copper that is used by the saddler. The great difficulty with this arises from the great delicacy of the silver coating, and its peculiar mechanical condition, which renders it almost impossible to obtain the requisite polish without

* Historique et Description des procedes du Daguerreotype et du Diorama par Daguerre Peintre, &c. &c. &c. Paris, 1839.

laying bare the copper beneath.* M. Daguerre divides his process into five parts. 1. To polish the plate and prepare it for receiving the coating of iodide. 2. To apply this coating. 3. To obtain the picture by placing the prepared plate in the camera obscura. 4. To render the picture visible. 5. To render the picture permanent, by removing all that part of the sensitive coating which has not been acted upon in the camera.

FIRST OPERATION.

For this we need a phial of olive oil, some finely carded cotton, a small quantity of very fine pumice powder very carefully prepared, or what is better than the pumice, a small quantity of Daguerreolite, (the name given to a substance recently discovered in the vicinity of New York, and now an article of commerce,) tied in a fine muslin bag, to be shaken out when used—a phial of dilute nitric acid, one part of acid to sixteen of water, by measure; a spirit lamp and an iron wire frame to hold the plate above the lamp.†

The surface of the silver plate is first powdered, by shaking over it the muslin bag, but without touching the plate. Next, with some cotton dipped in a little olive oil, the operator gently rubs the plate, beginning in the centre and rounding his strokes. The powder must be renewed and the cotton changed several times. When well polished, and upon the degree of polish depends the beauty of the future design, it must be cleaned by powdering it again and rubbing with dry cotton, always rounding and crossing the strokes. Next, a pledget of cotton is moistened with the dilute acid, by applying the cotton to the mouth of the phial and inverting it, so that the centre only may be wetted and that slightly. The surface of the plate is now rubbed equally all over with the acid applied by the pledget of cotton. Change the cotton and keep rubbing, rounding as before, that the acid may be equally spread

* The best plated copper which I have seen, after being carefully polished, exhibited under the microscope, with a power of two hundred and fifty or three hundred, a surface covered with innumerable vesicles, as if the mere pellicle of silver was detached at every one of these points.

† When pumice is used it must be prepared by levigation in a porphyry mortar, and afterwards finished by grinding upon polished glass with a glass muller, and lastly, perfectly dried.

and yet merely touch the surface. If the acid runs in drops change the cotton frequently and break down the globules as quickly as possible, rubbing gently; if this is not done the drops will leave stains. The uniform appearance of the plate will show when the acid has been properly diffused. Once more apply the powder and clean with fresh cotton, rubbing gently as before.

The plate is now placed in the wire frame, (Plate 1, fig. 1, both views,) the silver upwards. The spirit lamp is applied below, the hand moving it round, the flame touching the copper. This continues at least five minutes, when, if the lamp has been properly applied, a distinct white coating is formed all over the surface of the silver, when the lamp is withdrawn. The plate is now to be cooled suddenly, by placing it on a mass of metal or stone or other cold substance. When perfectly cold it is to be again polished, which is speedily done, since we have only to remove the film produced by the heating. This is done with the dry powder and cotton, repeated several times, changing the cotton frequently. After this, the application of the acid is to be repeated three several times, the dry powder being dusted over the plate each time, and polished off very gently with the cotton, which must be quite clean. Great care is now required not to breathe upon the plate, not to touch it with the fingers, or even with the cotton which has been touched with the fingers. When not intended for immediate use, the last operation with the acid is not performed. It is indispensable that an operation by acid, as described, be performed on every plate immediately before placing it in the camera. Lastly, every particle of dust is to be removed with clean dry cotton.

SECOND OPERATION.

For this we require the box represented Plate 2, fig. 1 and 2; the small board, Plate 1, fig. 3; four metallic bands, the same substance as the plates; a small handle, Plate 1, fig. 5, a box of small tacks, and lastly a phial of iodine.

The plate is fixed on the board by means of the metallic bands, with the tacks, as represented Plate 1, fig. 3. The iodine, previously pulverised, is put in the little dish D, at the bottom of the box, Plate 2, figs. 1 and 2. The board is now fitted in its place, the plate downwards, the whole supported by projections from the corners of the box, and the lid of the box is then closed. In this

position things remain till the vapor of the iodine gives the plate a coating of a yellow gold color. If too long protracted, the gold color becomes violet, which is to be avoided as the plate is then less sensitive to light. If, on the other hand, the color is too pale the picture will be too faint. A decided gold color is the best assurance that the preparation for the future picture is properly made. The time required for this depends principally on the temperature of the apartment, and in no case should any other heat be used than what can be applied through the temperature of the room in which the box is placed. Nor should there be any difference in the temperature of the air in the box and that outside, as otherwise there might be a deposition of moisture on the plate that would injure the final result. Since this operation goes on more rapidly in a warm room than in a cold one, and more rapidly also in a box which, from frequent use, has its interior penetrated with the vapor of iodine, the time required cannot be fixed. It may vary from five minutes to half an hour, and hence the plate must be examined from time to time. To prevent the access of light, the box must be placed in a dark room, and to enable us to distinguish the tint of the plate, the door of the room may be left a little ajar—the light should never be admitted from the roof. To inspect the plate, the lid of the box is raised and the board lifted with both hands and turned quickly, when very little light suffices to show the true color. If too pale, it must be instantly replaced till it acquire the gold tone—if the color is deeper on one side than another, to equalize the coating the board when replaced is to be turned one-quarter or one-half round—if the proper tint is passed, the plate is useless till it is again polished. When the proper color has been obtained, the plate and board is slipped into the frame, (Plate 3, fig. 4,) and is then ready to be adjusted in the camera. Great care is now required to protect the plate from light; even the light of a taper would leave traces of its action if long continued. If possible, the plate should now be placed immediately in the camera; if delayed beyond an hour, the reaction of the iodine and silver renders the surface unfit for receiving impressions. Before using the iodine box, care is required to cleanse it thoroughly of all visible particles of iodine that might be scattered around, and during its use the cup of iodine must be covered

with a piece of gauze stretched on a ring, to regulate the evaporation. The lid of the box must be opened and closed gently, lest the agitation of the air should raise any dust which might be present, and thereby damage the plate.

THIRD OPERATION.

For this we require only the camera obscura. Nature is now to impress an image of herself, on the photographic plate, through the agency of light, and as the objects to be depicted are more or less strongly illuminated, so will the images be more or less rapidly formed. After adjusting the camera in front of the objects, the focus is adjusted by advancing or withdrawing the frame of the ground glass plate. This adjustment made, the parts are fixed immovably, the ground glass is withdrawn, and its place is supplied by the apparatus with the plate attached, and the whole secured by small brass screws. The inner doors of the apparatus containing the plate are now opened and it is ready to receive its impressions. It remains only to open the aperture of the camera and to consult a watch. Dependent as this operation is upon the intensity of light, it is impossible to specify the exact length of time required. Practice is the only true guide. At Paris, the time varies from three to thirty minutes. The seasons as well as the hour of the day exert considerable influence. The best time is from seven to three o'clock, and a drawing which, in June and July at Paris, may be taken in three or four minutes, will require five or six in May or August, and seven or eight in April and September, and so in proportion. These, however, are only general data for brightly illuminated objects, for it often happens that twenty minutes are necessary in the most favorable months, when the objects are much obscured. Practice, after all, is the only sure guide, and the necessary experience is quickly gained by a few essays. When the plate has been left in the camera longer than necessary for producing the design, the lights in the drawing instead of being clean will be blackened by the too prolonged solarization. If, on the other hand, the plate is removed too quickly the proper details of the sketch will be very vague. At the close of this operation, as at the close of the preceding, we must hasten to the next. There should never be a longer interval than an hour

between the removal of the plate from the camera, and the application of the mercurial vapor. We are more sure of disengaging the images when no interval has been allowed.

FOURTH OPERATION.

For this we require two or three pounds of mercury, a spirit lamp, the apparatus represented Plate 5, figs. 1, 2 and 3, and a glass funnel with a long neck.

With the funnel the mercury is poured into the cup C, at the bottom of the large vessel, in sufficient quantity to cover the bulb of the thermometer F. From this time to the completion of the whole process, no light but that of a taper can be used. The board with its plate is now withdrawn from the frame (Plate 3, fig. 4,) in which it had been adapted to the camera, and is to be placed on the ledges of the black vessel, (Plate 5, fig. 1,) at an angle of forty-five degrees, the picture downwards, so that it may be seen through the glass G, on the side. The lid A, is then gently closed. The spirit lamp is now lighted and placed under the cup of mercury, where it is left until the thermometer, whose bulb is in the mercury, shows a temperature of one hundred and forty degrees of Farhenheit. The lamp is now to be taken away—the temperature of the mercury will continue to rise, though it should not exceed one hundred and sixty-seven degrees Farhenheit. The picture, till now invisible, after the lapse of a few minutes, begins to appear, as may be seen by looking through the glass G, with the aid of a taper, carefully avoiding, as much as possible, the impression of the light of the taper on the plate. The picture is left in this position until the thermometer connected with the cup of mercury has fallen to one hundred and thirteen degrees of Farhenheit, when the plate is removed and is now ready for the next operation. When the objects have been very strongly illuminated or when the plate has remained in the camera too long, it often happens that the picture becomes distinctly visible before the thermometer has fallen even to one hundred and thirty-one degrees Farhenheit. This can always be determined by occasionally observing the plate through the glass. We may now venture to examine the plate by a feeble light, to ascertain whether the process has been successful. If the picture is sufficiently distinct the plate is now detached from the board and deposited in the

grooved box, (Plate 2, fig. 3,) until it is subjected to the last operation. This need not follow immediately; the sketch may be kept in its present condition for several months, if it is not too frequently exposed to full day-light. After each operation with the mercurializing box, the inside is to be carefully cleansed of any adhering mercury, and if the apparatus has to be removed, the mercury from the cup is to be withdrawn by the small cock E. The little metallic bands which hold the plate to the board are also to be carefully cleansed with some of the dry powder and water, before they are again used.

FIFTH OPERATION.

We have now to remove from the plate the remaining coating of iodine, to prevent the continued action of light from destroying the design. For this we require a saturated solution of common salt, or a weak solution of hyposulphite of soda; the apparatus represented Plate 6, fig. 4, two views; two square copper troughs, Plate 6, fig. 2, two views, and a vessel for distilled water, Plate 6, figure 5.

One of the square troughs is filled to the height of an inch with the saline solution, the other in the same manner with common water. First the plate is placed in the water, merely plunged and immediately withdrawn, to moisten the surface. It is then placed in the saline solution, where it is moved about occasionally with the little hook of copper wire, Plate 6, fig. 3, until the yellow color has quite disappeared, when it is again to be transferred to the first trough of pure water; care being taken not to touch the drawing. Next the apparatus, Plate 6, fig. 4, two views, having been perfectly cleaned, the plate is placed on the inclined surface, and distilled water, hot but not boiling, is made to flow over it in a stream from the bottle, Plate 6, fig. 5, until all the adhering saline wash has been removed. Not less than a quart of distilled water will be required for a plate eight or ten inches square. Should any drops of water remain upon the plate, they should be removed by forcibly blowing upon them, or they may leave stains. This will be sure to happen if the water for the final washings is not very pure. To determine its purity we may let a drop fall on a polished metallic surface and evaporate by heat, when there should be no stain left. After the washing, it only remains to preserve

the drawing from dust and vapors that might injure the silver, and from mechanical violence, since the slightest touch would deface the picture. The sketches are preserved by placing them in squares of pasteboard with a glass over them and framing the whole in wood, when they are unalterable even by the sun's light. The collector while travelling may preserve his specimens in a box like that, Plate 2, fig. 3, with the joints of the lid closed with a collar of paper. The silvered plates may be used several times provided the copper is not exposed. But it is important to remove the mercury each time, immediately, by using the powder with oil, frequently changing the cotton. If this is not done, the mercury adheres to the silver, and fine drawings cannot then be obtained. When the solution of hyposulphite of soda is used for the washing, a less quantity is required; it removes the iodine also more completely than the solution of salt, especially when some time has elapsed between the fourth and fifth operations.

M. Daguerre attempted to preserve the sketches by using varnishes of amber, copal, caoutchone, wax and resins, but observed in all cases that the lights were weakened and the deeper tones hidden. A still greater injury was often apparent in a few months by the total destruction of the picture.

Such is the outline of this most ingenious process, as given by M. Daguerre; "a process that does not demand a single manipulation which is not perfectly easy to every one, which requires no knowledge of drawing, and does not depend upon manual dexterity—a process in fine, whereby the most unskiful may produce designs with the same exactness as the most accomplished artist." If we turn from the mechanical execution to the rationale of the work, we shall find the simplicity of the one strongly contrasted with the obscurity of the other. Whatever explanation may be given of the successive steps, there is one that promises to be exceedingly troublesome to demonstrate. That is the precise chemical change produced on the prepared plate, by the action of light, and the modus operandi of the change. The very light requisite for our experimental researches, acts as a chemical agent to influence and modify our results. In reviewing the entire process, the first chemical re-action is that between the silver plate and dilute nitric acid in the *first* operation. This would appear entirely subservient to the mechanical process of polishing, merely aiding

in this, and not likely in any other manner to produce any effect that might influence subsequent changes. The next re-action is that between the iodine vapor and the silver, in the *second* operation, where we have the formation of a delicate pellicle of an iodide of silver. It is by no means certain that this iodide is identical with the well known iodide of silver obtained by precipitation. I would consider it as more probably a distinct iodide. The proper color of the plate for obtaining the best impression is a golden yellow. If this color has not been attained the process fails, as I conceive from a deficiency in the quantity of the required compound forming the coating. If the yellow color has been passed, and has given place to a purple tinge, the process also fails, and probably from the formation of another and less sensitive iodide. This purple coat is equally formed whether the plate has been left too long in the iodine box, or whether after being properly prepared, it is incautiously exposed to light. Assuming that these are two distinct compounds, they may be distinguished by the terms yellow and purple iodide. The yellow iodide is the proper coating of the plate—the purple is produced by the long continued action of the iodine vapor, or by the exposure of the yellow iodide to light. The purple iodide may be identical with the precipitated iodide obtained by mingling solutions of nitrate of silver and hydriodate of potassa. The difference in the color of the precipitated iodide and the purple iodide may easily be referred to the massive condition of the one, while the other is in an exceedingly delicate plate. The action of light upon the yellow iodide manifestly produces some important change besides its conversion into purple iodide, since the yellow plate placed in the camera exhibits no change of color when withdrawn, although a perfect picture may have been formed. This action would also seem to be connected with the contact of the newly formed iodide of silver and the unchanged silver beneath, as in one experiment a portion of silver leaf was exposed in the dark to the vapor of iodine, whereby it became converted into a pulverulent yellow iodide that showed no change of color after several hours' exposure to full day-light. Differing strikingly, in this respect, from the yellow coating of the plate. If we might imagine two yellow iodides, one decomposable by the vapor of mercury, and the other not—one formed by the exposure of the plate to the iodine vapor, and the other by the

action of light upon the first, it would lessen the difficulty. Then the first yellow iodide formed on the plate in the iodine box would be more or less perfectly converted into the second, by the action of light in the camera. Those points most illuminated would be most changed, those less illuminated would be less changed. And the plate, when transferred from the camera box, would be variably affected, according as the quantity of the decomposable iodide present at different points, might vary. The action of the mercurial vapor is evidently to decompose the iodide of silver with the formation of iodide of mercury and amalgam of silver. It is the amalgam of silver, as I conceive, ultimately left upon the surface of the silver plate which constitutes the sketch. The different shades being produced by a difference in the thickness of the deposit of this amalgam. The subsequent washing with the saline solution merely serves then to remove the iodide of mercury that has been formed on the plate, in the fourth operation, and exposes the newly formed amalgam of silver.

My reasons for adopting the above view for the present, are the following simple experiments. A few drops of a saturated solution of salt were placed on the surface of a plate that had been exposed to the vapor of iodine, and left until the yellow coating was dissolved. The resulting solution, when placed in a watch glass on a sheet of white paper, gave no indication of iodine on the addition of a drop or two of a solution of starch, but on the subsequent addition of a drop of sulphuric acid, gave unequivocally the blue iodide of starch. A fraction of a grain of iodine in substance, was dissolved in a solution of salt in a tube, but on the addition of the starch, gave at once the blue precipitate. Hence the yellow coating cannot contain any iodine merely sublimed and deposited upon the plate, but must be entirely an iodide of silver.

In the closed end of a quill tube retort a small globule of mercury was placed, and in the neck some fragments of precipitated iodide of silver. Heat was now applied, until the mercurial vapor had acted visibly upon the iodide of silver. The small drops of mercury adhering to the neck of the retort and to the iodide of silver, were dropped back into the bulb, and the tube broken to remove the mercury. This was then placed in a watch glass and heated until all had been vaporised. The adhering film in the watch glass was then moistened with a drop of nitric acid, and

slightly heated, and slightly diluted with distilled water. To the resulting liquid in a small tube, a drop of a solution of table salt was added, which gave the peculiar white precipitate of chloride of silver. The same results were obtained more strikingly when the iodide of silver was placed on the surface of a drop of mercury in a watch glass, and then heated. The production of the canary yellow protiodide of mercury and amalgam of silver was then beautifully visible. To add to the probability of my view, the following experiments are required—to show the presence of silver in the solution of table salt that has been used to dissolve the yellow coating obtained in the second operation; to show the presence of mercury in the solution of table salt that has been used for the final washing of the picture; to show the components of the delicate film which constitutes the picture itself, and which I believe to be an amalgam of silver, and to determine whether the precipitated iodide of silver is decomposed by mercurial vapor at the precise temperature of one hundred and sixty-seven degrees Farhenheit.

These operations are so exceedingly delicate, that the limited time I have had to bestow upon the subject, has not enabled me to succeed. But I hope before another number of the Journal appears, to accomplish all. Then, although the mystery will not be entirely removed, it will be in some measure dispelled. The essential part of the process, the action of light on the iodide of silver, seems at present hardly open to experimental illustration. This discovery of M. Daguerre has revealed an interesting fact in regard to the nature of artificial light. Hitherto chemists have detected chemical rays in no artificial light except that from charcoal points ignited by galvanism, and from lime ignited by the compound blow-pipe. The Daguerreotype shows that even the light of a taper is capable of producing in degree, the same effects as the sun beams, and hence may be considered similar in character.

In the foregoing examination I have been indebted to my friend Mr. James Green, who very kindly prepared and furnished the plates that were required. His experiments with the Daguerreotype have produced some of the most beautiful impressions that have hitherto been obtained.

EXPLANATION OF THE PLATES.

N. B. The figures are all drawn to the scale of about one inch and a quarter to a foot.

PLATE I.

Fig. 1—Represents the frame of iron wire for the support of the plate, while undergoing the operation of heating. The 1st view is the plane seen from above; the 2nd, is a section and elevation, shewing the manner in which it is fixed. Fig. 6 B is the spirit lamp applied under the plate; A its stopple.

Fig. 2—The plate of plated silver on which the photographic design is made. The dimensions according to the scale are $8\frac{1}{4}$ inches by 6.4 inches. To operate upon plates of larger dimensions requires all the apparatus to be enlarged, for the same camera which admits light sufficient for such a plate has its intensity too much diminished, when of a greater focal distance with the same aperture, and consequently when the same number of rays, spread over a larger surface. In polishing the plate, begin at C, and strike circularly outwards to the circumference. Vary the direction, however, and invert the order. Always press lightly and evenly. Fig. 2, second view, is the plate seen edgeways: the lines represent (nearly) its thickness. Fig. 4, muslin bag, with pumice powder.

Fig. 3—The little board or wooden tablet upon which the plate is fixed for the succeeding operations, after the first one of polishing. It is attached by means of four fillets, B B B B, exactly the same material as the plate itself. To each of these are soldered two small projecting pieces, which embrace the plate near the corners, and the whole apparatus is retained in position by small nails, or better, screws through holes in the fillets, and inserted by the handle or turn-screw, Fig. 5. The purpose of the fillets is not solely to fix the plate; their more important use is to serve as a kind of frame to it, while undergoing the second process, the application of the iodine; without these, the coating of iodine would not be equally diffused, for the vapor would condense more rapidly along the edges, and consequently the coating would be too thin in the centre and too thick round the circumference. It is perhaps not easy to explain so as to satisfy all; but the experimental part is not the less certain. Fig. 3, second view, thickness of the board.

PLATE II.

Fig. 1—Section of the box for iodine, used in the second operation. The section is supposed to pass down the middle of the apparatus, by the line A B, Fig. 2, which represents the same seen from above. C is a small lid, which fits accurately the interior, dividing the whole into two chambers. It is used at all times, except when the operator is actually employed in coating the tablet. Its use is to concentrate the vapor of the iodine, and preserve the whole in a state for equally and rapidly diffusing the vapor, when the plate has been introduced. D is the capsule or little cup in which the iodine is placed. E the small board with the plate attached, face downwards. Four small projecting supports, F, receive the four angles, and retain the plate in the most favorable position for receiving the vaporization of the iodine as it rises upwards. Of course the cover C is withdrawn. G is the lid of the box, always shut except when the plate is to be withdrawn for examination. H, supports for C. K, tapering sides all round, forming a funnel-shaped box within the other; the funnel-shaped interior

diffuses the vapors of iodine, which thus spread as they rise. J, circle of gauze, stretched over a ring, and placed upon the cup with the iodine, the vapor of which rising through this light covering flows up equally, and not in clouds. Also the gauze prevents the particles of this substance from flying about, and probably injuring the plate.

Fig. 3—Case for preserving the plates from injury, either before or after they have been impressed with images. They slip into grooves formed in two opposite sides of the case, and at some little distance apart, so that the plates cannot touch in any part of their surfaces. If filled with plates that have designs, the case should be wrapped in paper, or better, cloth, to preserve them from dust and light. In travelling, this precaution is always necessary.

PLATE III.

Plate III represents four different positions of the frame into which the plate with its wooden tablet is put, on removal from the iodine process. The object of the apparatus is two-fold—to adapt the plate to the camera obscura, and to protect the iodine coating from the action of light till the moment in which it receives the focal image.

A, Half circles which open and shut the doors, B B.

C, Fig. 4—The plate with its wooden tablet fitted into the frame: back view of the *plate* fronting inwards, the door shut upon it.

D, Screws to fix the tablet and plate, and to stop the doors.

E, Thickness of the frame.

F, Fig. 3—Plate: the whole represents the arrangement for receiving the photogenic impressions on the plate, the doors being open, the focal image falls upon the prepared plate, and leaves its impress pencilled there by the rays of light proceeding from the natural objects.

PLATE IV.

The camera obscura, as adapted to photogenic delineation.

Fig. 1—Perpendicular section lengthways.

A, a ground glass by which the focus is adjusted. It is then removed, and the photographic plate substituted, as in C, Fig. 2. B, a mirror for observing the effect of objects, and selecting points of view. For these purposes it is inclined at an angle of forty-five degrees, by means of the support L. To adjust the focus, the mirror is put down altogether, and the ground glass A used. The focus is easily adjusted by means of the sliding frame, as represented in the plate—placing the screws on the double box D, and the projection E: when the focus is adjusted, it is fixed in position by the screw H. The mirror is retained in its place by hooks at F, which catch the eyes at G.

The object glass is achromatic and periscopic. Its diameter is twenty-one millimetres, equal to 3.18 inches English, and its focal distance thirty-eight centimetres, equal to 15.06 inches English.

This instrument has the disadvantage of reversing the objects. This can indeed be obviated by substituting another mirror outside, as K I, Fig. 2. This arrangement, however, injures the effect on the photographic plate from the loss of light. It is therefore not to be employed unless when the operator has time to spare. It increases the time of the operation by one-third of the whole.

PLATE V.

Plate V. represents three views of the apparatus used for the fourth operation; submitting the plate to the vapor of mercury.

PLATE I.

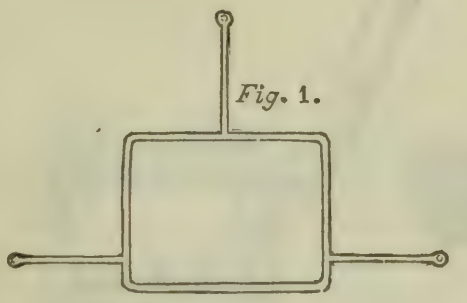


Fig. 1.

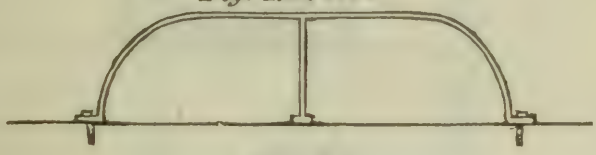


Fig. 1. 2d view

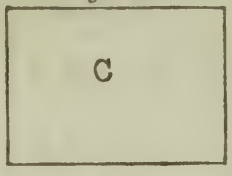


Fig. 2.

Fig. 2. 2d view.

Fig 3.

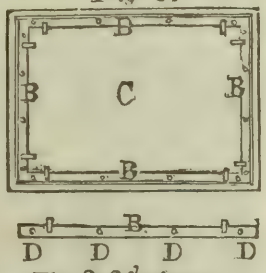


Fig. 3. 2d view

Fig. 4

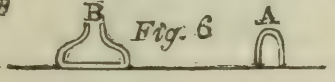


Fig. 6

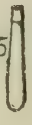


Fig 5

PLATE II.

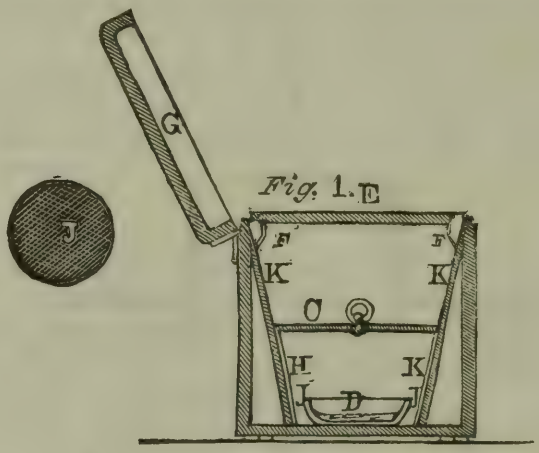


Fig. 1.

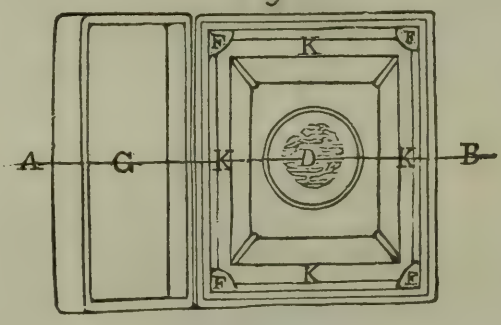


Fig. 2.

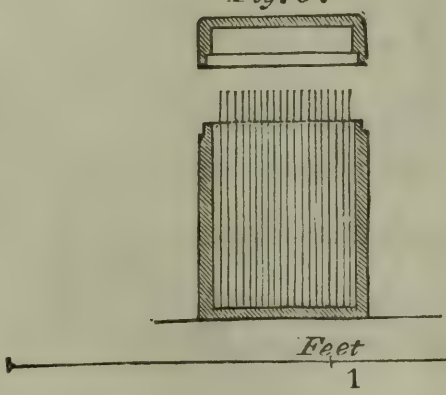


Fig. 3.

PLATE III.

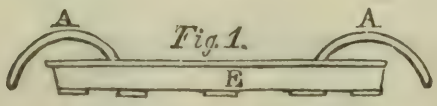
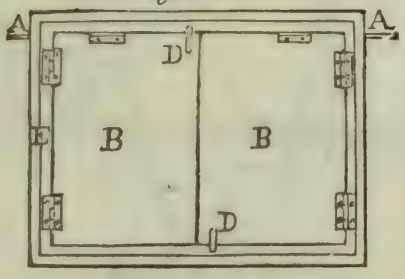


Fig. 1.

Fig. 2.



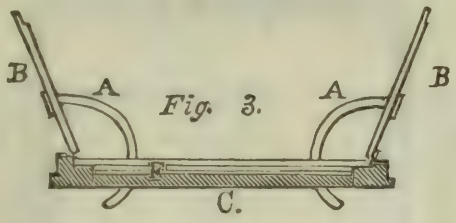


Fig. 3.

Fig. 4.

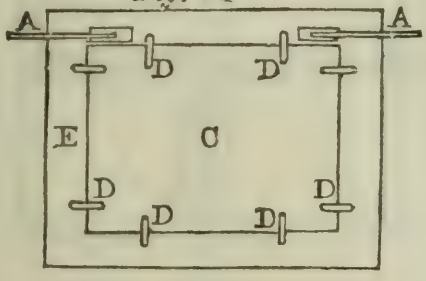


PLATE IV.

FIG 1.

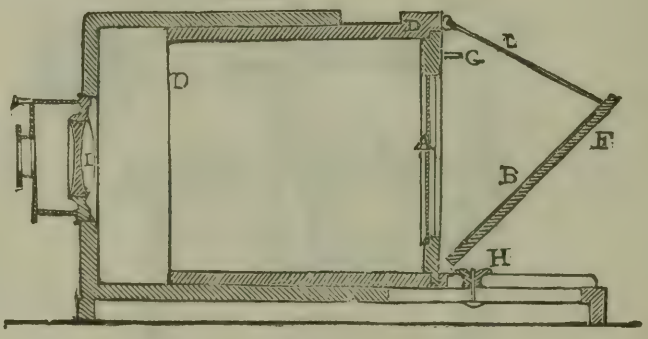


Fig. 2

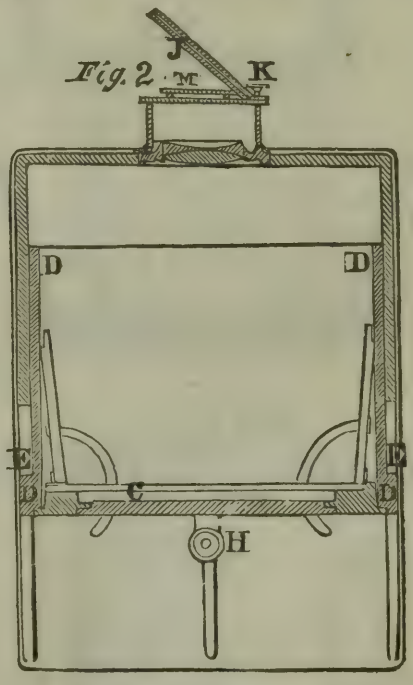


PLATE V.

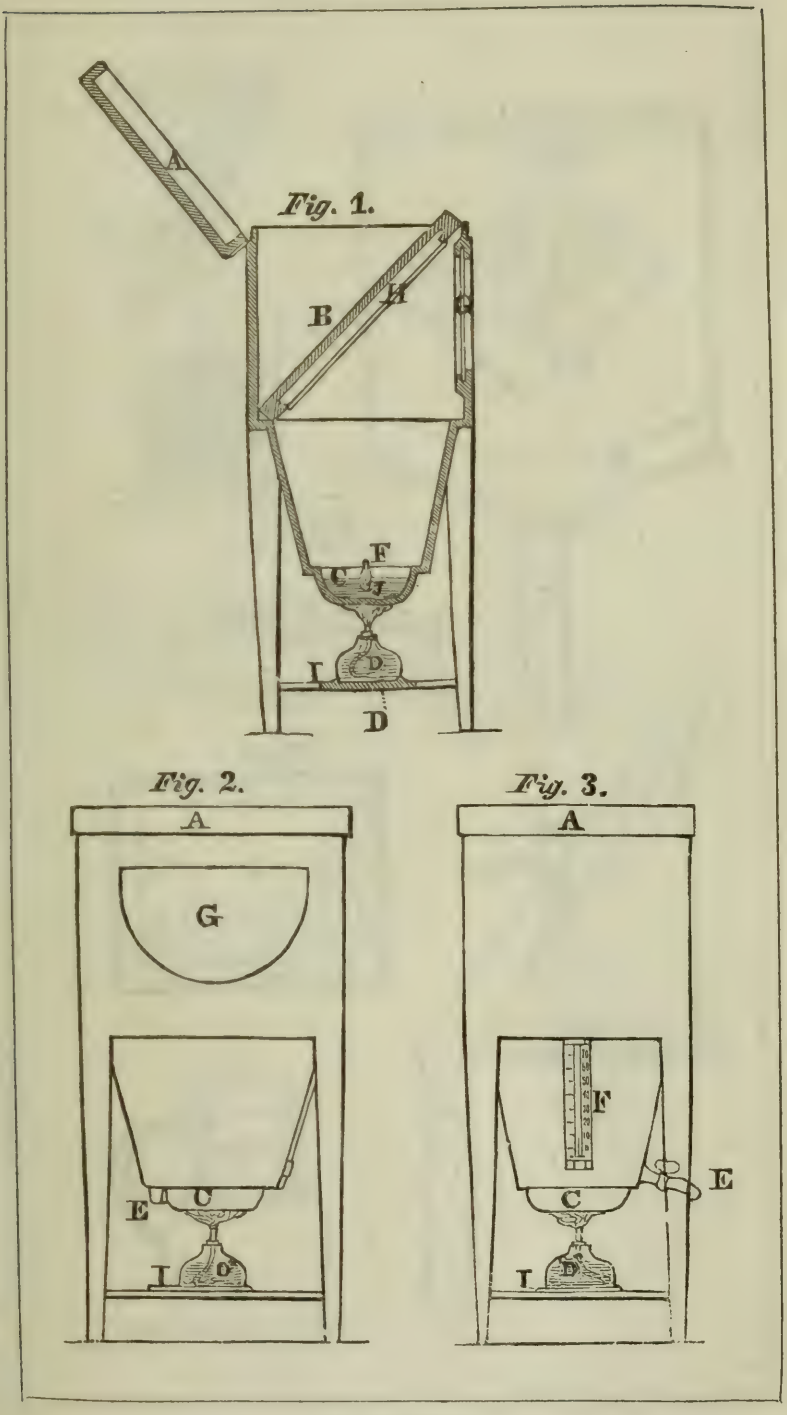
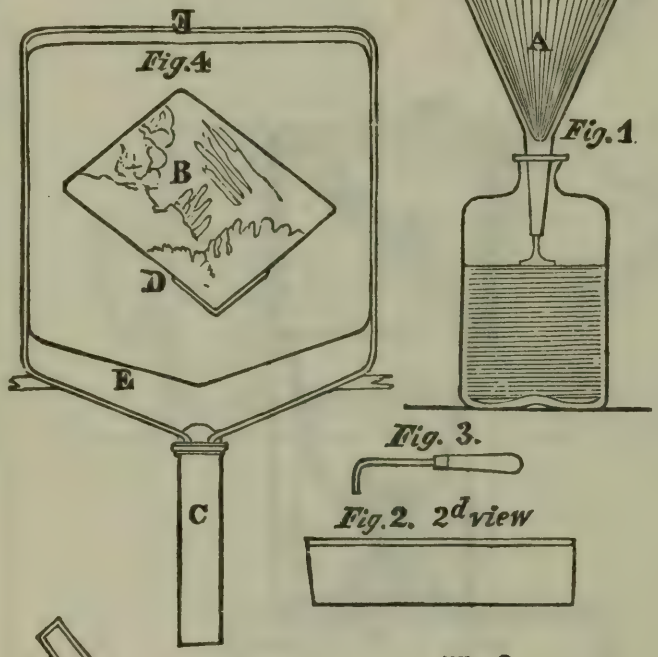
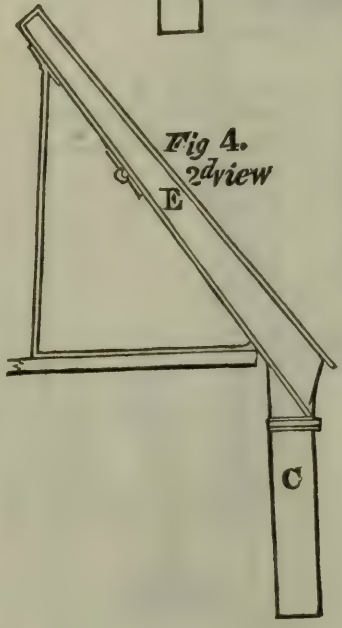
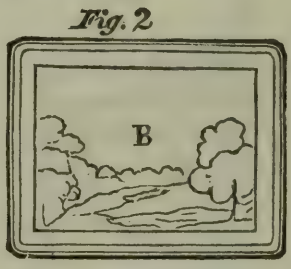
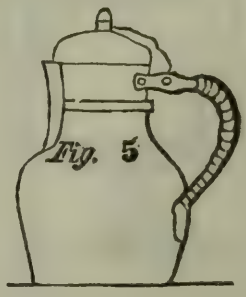


PLATE VI.









Murphy, print Balt.

Fig. 1—Section of the apparatus.

Fig. 2—Front view of the same.

Fig. 3—Right side in which the thermometer is placed.

A, Lid of the apparatus.

B, Black board with grooves to receive the small board and plate.

C, Cup containing mercury.

D, Lamp with spirit of wine.

E, Small cock inserted at an angle, through which the mercury is withdrawn after the operation.

F, Thermometer.

G, Glass through which to inspect the operation.

H, Tablet with the plate as removed from the camera.

I, Stand for the spirit lamp.

All the interior of this apparatus should be black and varnished.

PLATE VI.

This plate represents various apparatus for the last operation of washing the plate.

Fig. 1—Funnel, with filtering paper for purifying the saline wash of salt or hyposulphite of soda.

Fig. 2—Trough of tinned copper, in the bottom of which is represented one of the plates in the act of being washed. Two such troughs must be prepared, one for salt, the other for distilled water.

Fig. 3—Little hook for shaking the plate while in the wash.

Fig. 4—Apparatus in japanned white iron for washing the designs. E, well for receiving the water which then flows through the tube C.

Fig. 5—Bottle with wide mouth serving to warm the distilled water and to pour it upon the plate when placed as at B, Fig. 4.

Notes of an interesting case of Repeated Separation of the Ossa Pubis—By Jacob Baer, *M.D.*

Mrs. B******* is a well formed, healthy, active woman. Her pelvis is perfectly formed. Previous to my first visit, she had had several abortions, from mismanagement of those who attended her. The frequent repetition of which produced great debility and relaxation of the uterus and its appendages. Of this at present she is entirely relieved. I was called to see Mrs. B. for the first time, on the 8th of March, 1834. She was then laboring under prolaps. uteri, and separation of the ossa pubis. The pessary, with T bandage was used. In July she was perfectly relieved of the prolapsus uteri, and the bones of the pubis were firmly united.

July 8th, 1835. I delivered her of a living child. The ossa pubis separated as before. The T bandage was again applied. In the month of September the bones were united.

December 14th, 1836. I again delivered her of a living child. The bones separated and were united again in due time, by the same means.

November 26th, 1839. Delivered her of a healthy male child. The bones separated as in each of the preceding instances, and relieved by the same agency.

JACOB BAER.

Frederick county, Md. March 2d, 1840.

OBSTETRIC MEMORANDA—No. 2.

By G. C. M. Roberts, *M.D. Baltimore.*

January 26th, 1840, I delivered Mrs. G**** of a healthy female child. The labor was natural, but more tedious than otherwise; not from any preternatural enlargement of the child, on the one hand, which was of but ordinary size, or contraction of the bones of the pelvis of the mother, on the other; but entirely from ineffi-

ciency of uterine effort. On the second day after delivery, there was manifested by all the unerring train of symptoms usually attendant upon such cases, a full, free and spontaneous separation of the ossa pubis. Mrs. G. was entirely relieved of her painful and vexatious malady in about three weeks, by the application of a simple bandage, which was passed around the hips, of sufficient breadth to extend above and below the pelvis proper, and nicely adjusted, so as to preclude the possibility of slipping from its place. This case is recorded for the purpose of stating that this is the sixth time successively, in which a similar state of things has occured in her own person. There is nothing in the physical condition of Mrs. G. which would indicate, in the most distant manner, the necessity of such a state. I have been unable in a single instance, to trace it to any ostensible cause. What is still remarkable, after the usual and customary period for confinement to her room, she has never realized the slightest inconvenience from it, under any circumstances. Neither are there any symptoms threatening the recurrence of it, during the time intervening between the birth of her children, even under severe and protracted fatigue. Another remarkable circumstance in connexion with this lady's history is, that her mother was afflicted in precisely, (according to Mrs. G's testimony,) the same manner, after the birth of several of her children. She was alike unable to trace it to any apparent cause, occurring either at the time of, or prior to their birth.

NAVY REPORTS.

REPORT OF A CASE OF GUN SHOT WOUND.

By William Maxwell Wood, *M.D., U. S. N.*

Gentlemen,

A report of the following case of gun shot wound may be useful, as showing the great extent to which the restorative powers of nature may be trusted, even under unfavorable circumstances.

On the evening of August 17th, 1839, while the arms were being removed from the boats of the U. S. Steamer Poinsett, after their return from an expedition in search of Indians, a pistol was accidentally discharged; the ball passed through the arm of Daniel Kelly, the gunner, and struck a neighboring bulkhead with considerable force. It entered the outside of the arm, just below the insertion of the deltoid, divided and shattered the humerus, and made its exit on the opposite side of the arm, a little above the point of entrance. Some fragments of the bone were picked from the orifice of exit, and one was found adhering to the ball. The hæmorrhage was very free, and although Assistant Surgeon McOwen, who was standing near, instantly placed his finger upon the humeral artery, the wounded man's shirt sleeve was bathed in blood. Mr. Kelly was about forty-five years of age; had been for some time laboring under chronic diarrhœa; the weather was very warm, and the accommodations of the vessel bad. Under these circumstances, my first purpose was to amputate, but finding, upon relaxing a tourniquet which had been applied, that no hæmorrhage followed, I determined to await its recurrence. Slight arterial bleeding came on in a few minutes; the tourniquet was again tightened, and when, after a short time, it was loosened, no

hæmorrhage followed. The tourniquet was left on the arm; cloths wet in cold water applied to its whole extent, and one of the medical officers remained constantly by the patient. The cold applications were continued until the subsidence of tumefaction, when splints, with openings adapted to the wound, were applied. The wound healed kindly; a very slight slough separating from the orifice of entrance only, and in three months firm union of the bone had taken place. The dressings to the wound were linseed poultices, until the establishment of suppuration, and then only lint soaked in cold water.

Yours, respectfully,

WM. MAXWELL WOOD,

Surgeon U. S. N.

EDITORS OF THE

Maryland Medical and Surgical Journal.

ARMY REPORTS.

Case of Fracture of several Vertebræ and Injury of the Spinal Marrow—By J. H. Baldwin, *Asst. Surgeon U. S. Army.*

Sergt. McCulley, artificer, third regiment artillery, æt. thirty-four, upwards of six feet in height, extremely athletic, on the evening of December 19th, 1839, fell backwards from a scaffold on which he was standing at work on a building, about twelve feet from the ground, and received a violent contusion over the three lower cervical and first dorsal vertebræ, by which he was instantly deprived of motion and sensibility in his body and limbs. I did not see him until four hours after the accident, when he had been bled by a citizen who happened to be present, to the amount, as he said, of a quart. The following symptoms presented themselves. Paralysis of sensation and motion, complete, from the shoulders downwards with the exception of being able to move slightly the left fore-arm and wrist; skin cold; pulse feeble; intellect perfect; complains of no pain, except at the seat of the injury, which presents no *external* marks of the fall. Considerable tenderness on pressing the finger on the injured spot, and feels acute pain on moving his head and neck. Respiration short, accompanied with dilatation of the nostrils; complains of feeling very cold. Ordered him to be covered with blankets and placed before a comfortable fire; and, as he complained of thirst, directed hot tea for drink.

20th, 8, A. M. Intellect sound, paralysis the same; complains bitterly of cold, though the weather is as mild as the month of May in the north, and he is near a warm fire. Skin feels warm where it is covered by the blankets, but when exposed to the air

immediately acquires an icy coldness—great thirst. ℞ Sulp. magn. ʒ ij. in cold water.

4, P. M. Has no control over the sphincter ani, and has had several large, fluid and *involuntary* evacuations from the bowels. Pulse more full; regular and compressible. More heat of skin to the touch, but complains of feeling very cold in all parts of the body except the face, which is flushed. Constantly calls for cold water to quench his thirst. Having ascertained that he had passed no urine since the injury was received, I examined the lower part of the belly, and found the bladder much distended. At the same time noticed a violent priapism of the penis, which subsided under the application of a cloth wet with cold water. I then introduced a catheter and drew off an immense quantity of urine. As the priapism did not reappear, I attributed this symptom to the irritation produced by the collection of so large a quantity of urine, and not to the spinal injury. ℞ Sub. mur. hyd.=Pulv. antimon. iv. grs. *a. a.* every hour. Fire removed.

9, P. M. Difficulty of breathing much relieved. Pulse more full, but compressible. More warmth of skin, which however immediately becomes very cold when it is exposed to the air; obliged to keep him well protected with blankets. Less pain on moving his head and neck. Has recovered to a considerable extent *sensation* in both arms, and *motion in the left fore-arm.* Hands and fingers perfectly numbed and insensible to a violent pinch. Body and lower extremities, as before, perfectly paralysed in motion and sensation from the sternum downwards. Intellect sound. Face more flushed. ℞ Sulph. magnes. ʒ ji. tart. antimon. et potass. grs. ij. M.

21st, 8, A. M. During night had several profuse involuntary evacuations from the bowels. Intellect sound; paralysis of the body and lower extremities the same as before. In the night was able to straighten out the left arm, which before was immovable. More sensibility in *both arms*, from the wrists upwards. In front, from the lower part of the sternum upwards, the sensibility of the skin is natural, and he complains of a slight pinch; on a level with the same point, on the back, some sensibility, but not very acute. From the lower part of the sternum down, perfectly paralysed. Priapism reappeared on the second accumulation of urine; was removed by emptying the bladder with a catheter. Tenderness,

on pressing the lower cervical vertebræ, but not very acute. Respiration natural; pulse rather more frequent than natural; full, but compressible. Skin warm, when covered, but immediately becomes cold, when exposed to the air. Great thirst; tongue dry. ℞ Calomel;=pulv. antimon. iv. grs. *a. a.* every two hours. Three cupping glasses applied over the cervical vertebra. Cold water for drink.

4, P. M. Symptoms generally the same. No passage from the bowels since yesterday; cups drew considerable quantity of blood; no change in paralysis. Powders produced nausea and bilious vomiting during the day; tongue dry; great thirst. ℞ Sulph. magnes. ʒ j.=carb. magnes. ʒ jj. M. Lemmonade for drink.

8, P. M. No change; continued lemmonade for drink.

22d, 8, A. M. Several dark, bilious, and involuntary discharges from the bowels during night. From the loosening of the bandage on the arm in which he had been bled, the blood flowed to the amount of a quart before it was discovered. Pulse soft and compressible; paralytic symptoms the same; tongue dry, with a dark fur on its surface. Introduced a catheter and drew off a large quantity of urine. ℞ Calomel;=pulv. antimon. iv. grs. *a. a.* every two hours. Lemmonade for drink.

4, P. M. No evacuation from the bowels since morning; pulse soft and regular; tongue dark and dry. ℞ Sulph. magnes. ʒ i. in cold water.

23d, 8, A. M. Had two dark, tar-like passages through the night; pulse soft and regular; slept well, and complains of no pain, except a sensation of heaviness in the chest; paralytic symptoms the same. Has had no appetite since the day on which the injury was received; asks for something to eat; ordered rice water and toasted biscuit. ℞ Calomel and pulv. antimon. continued; friction of the body and limbs with warm spts. turpentine.

8, P. M. Pulse soft; skin, from the lower part of the sternum down, cold; head and neck flushed and feverish; tongue dark and dry; involuntary oozing of fœces from the rectum. Scrotum, perinæum, and inside of the upper part of the thighs, inflamed and covered with large blisters filled with serum. I take these to be the signs of approaching gangrene. Ordered blistered parts to be covered with simple cerate. Great thirst; cold lemmonade.

24th, 8, A. M. Involuntary oozing of fœces. Inflammation and

serous blisters extending from the perinæum over the buttocks. Drew off the urine with the catheter. Drowsiness with intervals of great restlessness. Incipient gangrene of the left foot. Respiration rather labored; sleeps with his mouth open; tongue black and dry. Cold lemonade to quench his thirst, of which he frequently complains.

26th, 8, A. M. Gangrene of the left foot progressing; incipient mortification of the perinæum, inside of the thighs, buttocks and lower part of the back. Body from the neck down, feels cold and dead; great thirst; very restless; delirium. ℞ Pulv. doveri. grs. x. Cold water for drink.

28th, A. M. Slept after taking the dover's powder; gangrene progressing in all the parts above mentioned; pulse feeble and irregular; tongue black and dry; eyes sunken; body and limbs cold and dead; no pain; calls for tea to quench his thirst. Hot tea ordered for drink.

30th, 8, A. M. Pulse feeble; tongue black; eyes sunken; no pain; gangrene progressing. Opium.

31st, 8, A. M. Sinking; tongue perfectly black and dry; pulse very feeble; mortified parts all black.

January 1st, 1840. Expired.

POST MORTEM EXAMINATION.

On cutting down and exposing the lower cervical and first dorsal vertebræ, found the latter fractured immediately behind the oblique processes, so as to separate completely, the *posterior* arch formed by the spinous process and its roots, from the *anterior*, formed by the body and the transverse processes. The posterior arch was very loose and moveable; being only attached by a few ligamentous and muscular fibres. I could not perceive that it was depressed below its natural level. The cellular tissue for several inches around, was injected with extravasated blood. The nature of the injury being obvious, I did not think it important to open the spine.

OBSERVATIONS.

It is evident that an irreparable injury was inflicted on the spinal marrow immediately beneath the first dorsal vertebra, where it was fractured, producing paralysis of motion and sensation in all the parts below that point. Although the injury was not high

enough to affect *directly*, that portion of the spinal marrow giving origin to the *respiratory nerves*, yet the effects of the contusion must necessarily have been felt to a greater or less distance from the point at which it was received, and thus explains the labored respiration, and the dilatation of the nostrils in the act of breathing, which were very conspicuous at first, but which gradually subsided. The gangrenous symptoms in the lower extremities, buttocks, perinæum, and inside of the thighs, were only to be attributed to the debility of the capillary circulation. The nervous influence being totally withdrawn from the extreme vessels, by the destruction of the functions of the spinal marrow. The posterior arch of the first dorsal vertebræ might easily have been removed immediately after the accident. But what benefit could have been derived from doing so, when the fatal injury to the spinal marrow had already been inflicted? The case was evidently a hopeless one from the first. And all that could be done, was to subject him to a rigid antiphlogistic treatment, and trust to the efforts of nature, which alas! are too often directed to the destruction, rather than the preservation of human life.

Camp Dallas, Cape Florida, January 2d, 1840.

BALTIMORE INFIRMARY.

REPORTS OF SURGICAL CASES.

April 19th, 1839. Dominick Adams came into the house with necrosis of the tibia. The limb was very much enlarged and presented five sinuses, which had existed for one year, having resisted every effort, both constitutional and local, to heal them, and continually poured out an offensive ichor. He was a lad sixteen years of age, from a malarious district of St. Mary's county. He did not remember that he had received any injury, but said the sores had come of themselves. Having previously evacuated his bowels, on the morning of the 22d a large anodyne was ordered for him and he was brought into the operating theatre. An incision six inches in length, in front of the tibia, was made and the flaps dissected back on either side from the bone. The carious bone now presented itself, and was removed by the gouge, the chisel, and the mallet. It extended for more than four inches in front of the tibia, and at the head of the bone penetrated entirely through its cancellated structure. Every particle of the diseased bone was removed, when, after having been upon the table thirty minutes, he was conveyed to his ward. But slight irritative fever came on. He required nothing but effervescing draughts and gentle cooling cathartics. The wound assumed the most healthy appearance, and cicatrized beautifully under simple dressings. He was discharged cured, May 25th.

May 29th. Mary, a slave, aged twenty-five, came in with a frost-bitten foot. The bones of the tarsus and metatarsus were entirely disorganized, and the member was swollen to frightful dimensions. She was brought into the theatre on the 31st, after taking a large

anodyne, and amputation performed by the circular incision below the knee. Mary suffered a great deal of constitutional irritation, remaining pulseless and cold for several hours after the operation. No inordinate re-action, however, came on. The stump healed with astonishing rapidity, and to the surprize of the gentlemen of the house, who at first imagined it a spectre, she hopped from her room unattended, with the assistance only of a slender stick, on the seventh day. She was discharged cured, on July 13th.

June 16th. Peter Hilditch, æt. forty-two, came into the house with a cancerous left testicle. The organ was much enlarged and the induration extended up the cord. He did not remember when his attention had been first called to the subject. Four months before, it had, as he said, gathered and broke. It presented a large green surface inferiorly, from which blood was oozing at numerous points. The ichorous discharge was so acrid as to corrode every part it touched; and the skin for some distance beyond the raphe and in front of the right testacle, had taken on specific irritation. No time was here to be lost, and on the next day at twelve o'clock, in the presence of a number of students and medical gentlemen, the testicle was extirpated. The incision commenced high up on the cord, and swept rapidly round the diseased parts to the lowest portion of the scrotum. The dissection beyond the raphe and upon the tunica vaginalis of the other testicle demanded more care. As the cord, as already mentioned, was indurated as high as it could be felt, it was desirable to remove as much of it as possible. To prevent its retraction and the dangerous, if not fatal hæmorrhage which would have ensued, a needle armed with a long thread was passed through it, and the two ends held by assistants. The cord was then divided and two beautiful little arteries presented their mouths for ligatures. Tying the arteries alone, the terrific irritation which followed the old plan of tying the whole chord was avoided. Simple dressings were applied, and the cicatrix gathered together this frightful hiatus so that it would scarcely be observed. He was discharged cured, August 28th. He is now one of the public officers of our city and has experienced no inconvenience since. He is a married man and is unable to appreciate the loss of the testicle.

July 5th. Patrick Ryan, aged forty, a stout, hale Irishman, came in on the evening of this day. A large cast iron wheel had fallen upon his leg, at the foundry of Messrs. Watchman & Bratt, and had lacerated the skin and integuments for several inches above and below the knee and in front of the patella. The leg was beautifully bandaged when the patient came in, so he was put to bed without disturbing the limb; more particularly as the information received was, that the patella was broken and had been set by a neighboring physician. The next morning, however, the surgeon of the house who then first saw the patient, was induced to remove the bandage, by the great suffering of the patient. The leg had been unable to swell from the tightness of the bandage, and all circulation was suspended. The wound was then observed closely covered in every part with adhesive strips; on removing these, the edges were found united by a common hemming stitch, the skin being punctured about fifty times. These of course were carefully cut away, the leg placed upon a soft pillow and evaporating lotions ordered. It was then ascertained that Patrick had been the *victim* of Homœopathic surgery. On the next day mortification commenced in the foot. The fermenting poultice was immediately applied and tonics and stimulants administered. On the day after, however, it was apparent that the nutritive function had ceased below a point above the knee.

Antiseptics and tonics were continued. The fact that the death of the parts progressed downwards and not upwards, led to the belief that either the first shock had destroyed or fatally weakened the vitality of the blood vessels and nerve of the leg, or the severe compression had accomplished the same result. The advance of constitutional irritation admonished us that if an effort was to be made to save Patrick, it must be made quickly. He was prepared for amputation at four o'clock, but our chagrin may be imagined, when, upon the arrival of the hour he obstinately refused to submit. He was willing to have all the dead flesh cut off but the bone must be left, as he had a great horror of a wooden or a cork leg. From this moment he became flighty. Several of his friends arrived, however, and on seeing his hopeless condition, persuaded him to seize the slender chance of an operation—a chance which had been dwindling every moment after four o'clock. He sent

for me at nine o'clock, P. M. and requested that the operation should be done. It was agreed to with a distinct understanding on his part of the slightness of the hope it held out. The amputation was performed with the circular incision in the upper third of the thigh. He bore the operation well, and his pulse was so good afterwards as to inspire a hope that he would survive. In about four hours he fell rapidly off and expired. The reader may make his own comments.

November 2d. Rachel, an orphan child, aged ten years, came in laboring under calculus in the bladder. Her general health had been for some time deranged. The mucous membranes generally were the seat of irritation. Jacobsen's lithontrite was introduced on the 5th, and the stone readily seized. The crash of the stone was heard through the theatre. A portion of it came away at the time, and the rest of it in a few days. She had no return of stone and became robust and hearty. Discharged December 6th.

I am sorry to say this poor little girl died a few days since at the Asylum, of bronchial ulceration and general mucous irritation.

November 2d. George Waters, slave, æt. fourteen. This little boy one cold night climed to the top of one of Mr. Ellicott's furnaces for melting iron, and laid himself down to sleep. The gas from the burning charcoal rendered him insensible. The workmen not knowing where he was, when the melting was over, opened the flew at the top of the furnace for the purpose of allowing the heated air to escape. It played upon the side of his leg, completely crisping it. One week afterwards he was brought into the Infirmary, with symptoms of tetanus plainly manifest. ℞ Calomel ʒ ss. P. opii, grs. iv. was at once given, and a blister applied to the back of the neck; thirty drops of laudanum ordered every half hour through the night, and ʒ iv. given per enema.; bread and milk poultice to the leg.

November 3d. ℞ Calomel, grs. v.; gum opii, grs. ij. every four hours; the laudanum continued every half hour. The spasms continued to increase in frequency and violence.

4, P. M. Opisthotonos now came on. Anodyne enema. re-

peated; patient suffering a great deal. As the case was now marching with rapid strides to a fatal conclusion, it was determined to give the boy a chance, by removing the source of irritation. As death was the certain issue without an operation, the experiment of removing the limb was deemed sufficiently feasible for the attempt. Amputation was performed in the upper third of the thigh by the circular incision, at eight o'clock, P. M. in the presence of the medical class. He bore the operation well. The spasms were immediately relaxed and he fell into a sleep. About twelve o'clock the spasms returned and death shortly relieved him from his sufferings.

November 7th. Joseph, a slave, æt. fourteen, came in laboring under stone in the bladder. He had exhibited symptoms of calculus in infancy, and had suffered great constitutional irritation. The lungs sympathised deeply. He had cough, hectic fever, and night sweats. His growth had been retarded. His pain was insufferable; nor had he ease by night or day; he was unable to lay down. He had a large prolapsus ani, and seemed filled with lumbricoides. Ordered ℞ Ol. ricini, ʒ i. and ℞ Ext. hyosciam. grs. iij. three times a day.

November 10th. His bowels having been opened and one drachm of laudanum administered, he was brought into the theatre, when, having been secured in the usual way, the lateral operation of lithotomy was performed. The knife used was beaked at the end to adapt it to the groove in the staff. The stone proved of large size, being as large as a hen's egg, and weighing thirteen and a half drachms. The stone was fortunately caught in its long diameter.

November 14th. A fistulous connexion was discovered between the lowest part of the rectum and the wound. This probably arose from a slough at a point where the folds of the rectum which were exceedingly enlarged, might have been touched by the knife in drawing it downwards and outwards, to produce an incision sufficiently large to admit the stone, the size of which was apprehended. Alterative medicine was ordered with a decoction of the pink-root. The hen-bane was continued. His health daily improved. His cough left him and his appetite became good. The fistula was

treated with lunar caustic, which not acting with sufficient promptness was substituted by the actual cautery.

March 2d. He was discharged cured, the cicatrix being complete and his health perfectly good.

November 7th. George Sides, æt. twenty-three, engaged upon the Baltimore and Ohio Rail Road, was run over by the cars, twelve wheels passing over the left knee. The joint was of course entirely crushed. It occurred late in the evening; he was brought to the Infirmary and amputation in the upper third of the thigh, by the circular incision performed at once before the class. No unpleasant symptom followed. The bone did not project in the least, though the thigh was unusually large and muscular. Discharged well, March 12th.

November 18th. Joseph Swigart, æt. thirty-two, an engineer on the Baltimore and Ohio Rail Road. His foot and ankle were caught in the crank while the engine was in motion, and being drawn down by it was literally crushed. It happened at twelve o'clock, and he was brought twenty miles to Baltimore, where he arrived at sunset. Amputation below the knee was performed about eight o'clock, before the medical class. The incision commenced between the two bones, making an oblique flap. Great advantage has been observed to flow from this mode of making the incision, inasmuch as it covers handsomely the extremities of both the bones. The reaction in this case was very great, but was controlled by the effervescing draught and sponging with cool vinegar and water.

November 19th. He complained to-day of great pain in the stump and was very restless.

Nine o'clock, P. M. Considerable hæmorrhage from the stump, with phlebitis of the internal saphena vein. The blood burst through the dressings with such impetuosity that it was supposed a ligature had slipped from a large vessel. The stump was promptly opened. The vessels were found well secured. The hæmorrhage having proceeded from innumerable small veins and arteries, which, taking on an excited action, contributed to form

the estuary which threatened to deluge us with blood. The bleeding, however, relieved the very condition of things which produced it. No unpleasant symptom occurred afterwards, and he was discharged well, January 31st.

The stump is so flat and firm that a cork leg has been adjusted to it.

November 28th. Frederick Stephon, æt. twenty-one, a butcher, on the 27th, in drawing a meat tub towards himself, forced a large and sharp knife into his left thigh, dividing the femoral artery and vein. The hæmorrhage was awful, some supposing he lost six pounds, some as high as twelve or thirteen. Two medical gentlemen in the neighborhood hastened to the spot, and finding him cold, pulseless, and exsangueous, applied a compress which they firmly bound around the limb. On the next morning he was brought to the Infirmary. It was thought that the artery and vein were both divided, from the direction and size of the wound, under which circumstances amputation seemed the only hope. But so completely exhausted was he, being unable to move without fainting, that amputation presented only certain death. The period for cutting down and tying the vessels had passed by. There was now a large bloody infiltration of the cellular tissue. The extremity was cold and no pulsation could be felt in any of the branches of the femoral. It was determined then in consultation, under these difficult circumstances, to watch the case, and act according to any emergency which might arise. He was carefully and constantly watched.

November 31st. The great toe assumed a dark color, and vesicles made their appearance.

December 1st. For the first time pulsation could be felt in the anterior and posterior tibial arteries. The leg now gradually lost its death-like coldness, until its temperature became natural. The great toe became warm also, and the gangrene did not extend. His strength very slowly improved, his pulse continuing above one hundred, and remaining small, bubbly and irritable.

On the afternoon of December 9th, hæmorrhage recurred. He lost not more than one pound of blood before the artery was secured. The incision was made high up in the healthy part of the artery.

The delirium from anæmia seized upon him. So restless was he that five men could not hold him still. Convulsive shudders ran over him, and repeated vomitings, which nothing could allay, completed his prostration. He expired at 10, P. M.

On post mortem examination, we found both the femoral vein and artery divided, also several branches of the profunda—great bloody infiltration of the cellular tissue, extending as low as the knee; the sartorius muscle completely divided, while the knife had penetrated the triceps.

July 25th. Daniel Sexton, æt. eighteen, was run over by the rail road cars of the Baltimore and Ohio Rail Road Company. The metatarsal bones and the small row of the tarsal bones were destroyed. Professor R. W. Hall performed the operation of Lisfranc, leaving the astragulus and calcis and the articulation at the ankle joint. No unpleasant symptoms followed, and the stump healed to the size of a half dime. Here it remained stationary for a long time. The constitution now began to show the effects of confinement and protracted irritation. Night sweats, cough, and hectic, made their unwelcome appearance. The wound commenced enlarging. Its discharge became ichorous, and upon careful examination it appeared clearly, that the bones and cartilages of the joint were degenerating. Cartilages are slow to take on irritation, and while the soft parts had healed rapidly, the shock given to the structure of the joint by the wheels of the car, was producing its gradual, but not less certain effects. No alternative remained but a second amputation, which was performed on the 19th January, in the presence of the medical class. The amputation was performed below the knee, by the circular incision. The circular incision has given us such good stumps, that we feel hardly willing to hazard the flap operation. We have not had a single conical stump, nor one instance in which the bone projected. The reason seems to be that you leave nothing to be absorbed, while in the flap operation a large body of muscle must be removed by the absorbents. A considerable reaction came on after this operation, and a hæmorrhage similar to that in Joseph Swigart took place at three o'clock the next morning. When the stump was opened the blood seemed to rush from a thousand fountains. One

muscular branch only was respectable enough to deserve a ligature. The bleeding, as in the former case, relieved the excited condition of the vessels. Ordered ℞ Ext. hyosciam. grs. v. every night, and a tea spoonful of bark three times a day, in water. While the night sweats lasted, he took also, every night, acetas plumb. grs. v. The constitutional symptoms gradually disappeared; the stump healed beautifully, and he is on this day, March 25th, perfectly well. A cork leg is also attached to this stump. Upon laying open the ankle joint, the knife passed as readily through bone as cartilage. The change approximated the cheesy degeneration. The preparation is in the museum of the University of Maryland.

January 7th. Thomas Kahoe, æt. twenty-six, had his arm broken in Washington county, by the falling of a tree. At the commencement of the lower third of the humerus a transverse fracture was found, while just above this point commenced an oblique fracture two inches and a half in length. It was treated by the short splints, and an artificial joint at the oblique fracture was the result. Five weeks after the accident, he came into the Baltimore Infirmary. The bones were not only perfectly moveable, but the upper extremity of the lower fragment seemed ready almost to pierce the skin. The plan of Amesbury was first tried, with the modification only of the permanent splint. Pressure was applied and the fragments kept in the position of perfect repose.

January 19th. Finding on to-day, no sign whatever of improvement—the joint being quite as moveable as ever—it was determined to try Dr. Physick's plan, or at least some modification of it. Physick was in the habit of passing an armed seton needle through the ligamentous union, breaking up the ligament as he went through, and allowing the seton to remain until a sufficient degree of irritation had been produced to insure the formation of callus. The obliquity in this case, however, was so great, and the separation between the fragments so wide and the ligament consequently so extensive, that it was resolved to cut boldly down upon the outer side of the humerus, and to remove thoroughly the ligament with the knife. This was done, and the class could easily observe the white extremities of the fragments denuded of

ligament. A seton needle, armed with silk tape, was then passed between the fragments and out upon the outer side, so as to avoid the vessels. One week afterwards the seton was removed, and the arm put into splint; great care being taken to press the fragments together and to keep them in a state of immovable apposition. The arm was taken out of splint on March 15th; a great absorption of muscle had been effected by the pressure, but happily the fragments are united. Frictions to the skin with whiskey, were then ordered, and the muscles are daily acquiring strength.

April 8th. The establishment of a bony union between these fragments no longer admits of a doubt—the arm therefore is saved.

January 6th. John Lewis, æt. twenty-one, fell, five years ago, from the height of about thirty feet, into a bed of rocks in Gwynn's Falls, and alighted upon his head. Of course the most horrible fractures of the cranium were produced, and, insensible and apparently dead, he was carried to his home, hardby. Scarce a hope of his recovery was entertained, but, in spite of all, the bones united. He recovered, however, with the loss of speech and memory. After more than a year his speech returned to him and his memory continued sensibly to improve. He was now seized with epileptic fits, at long intervals at first, but gradually growing more and more frequent. During this time he resorted to every variety of treatment under various and skilful gentlemen, without the least relief or mitigation even of his paroxysms. The fits multiplied their frequency until he had several every day, and it became apparent that the mind was tottering under these repeated shocks of the cerebral organ. It was under these circumstances that John Lewis came into the Infirmary. Upon examination of the irregular surfaces left in the reparation of the cranium, three points of depression were discovered near the junction of the occiput with the parietal bones, and it was determined to trephine upon the deepest of these.

January 7th. He was brought into the theatre and trephined in the presence of the class and a large number of medical gentlemen. At the close of the operation, he fell into an epileptic coma which lasted for ten minutes. On the next day he had a slight convulsion, and no more for four weeks afterwards, when he had

four or five. He was earnestly desired to submit to another operation, but the fits did not recur during the week he continued in the house, and he went out with the promise that he would return if the disease attacked him again.

March 28th. He visited us to-day and has had as yet no relapse.

January 23d. Mary, a slave, æt. thirty-six, came in with a large schirrous tumor in the left breast. She had observed the lump for years, but it had never hurt her till within the last six months, when it commenced actively and obviously to enlarge. The glands in the axilla were not affected. The whole breast was removed on the 26th, it being necessary to tie but one artery.

March 25th. The cicatrix is firm and healthy and the patient well.

January 27th. Ann Garraty, æt. thirty-three, came in to-day with fungus hœmatodes of the rectum. Her temperament is lymphatic and her appearance delicate and exsangueous. She has been in ill health for two years, has had functional disturbance of the liver, and some organic disease of that viscus was for a time suspected. Her brother died of pthisis pulmonalis, and she presents the physiognomy of the same diathesis. She has been aware of the existence of a tumor in the lower bowel for more than six months, but at first supposed she was laboring under piles. A false delicacy prevented her from disclosing her distressing situation, to her excellent and accomplished physician, Dr. F. Chatard, until about two weeks ago. When she bears down at stool, a large lobulated bleeding tumor is thrust out. It is attached mainly to the anterior part of the rectum, but stretches its arms on either side. It is very vascular, deriving its supply from the middle and inferior hæmorrhoidal arteries, the branches of which can be distinctly felt pulsating through the walls of the tumor. It extends up the rectum two inches and a half. Her fœces are compressed in their passage by the tumor to the thinness of a riband. She is anxious that it should be removed.

January 30th. The certainty of death and death too in its most horrible shape, if this tumor be allowed to proceed unmolested,

with her anxious desire that something should be done, renders the position of the surgeon extremely delicate.

The profound situation of the vessels, their great enlargement, the danger of hæmorrhage to so delicate an individual, of death on the table, were enough to invest the case with intense interest. It was determined, however, as the patient was fully aware of all the risk, and had prepared herself for the worst, not to shrink from the effort to save her.

A strong beef's gut was got ready, tied at one end securely and a stomach tube introduced. Iced water and a syringe were in readiness to fill the gut, provided pressure became necessary to arrest the hæmorrhage. The tumor was now thrust out, and two ligatures passed through the gut at the base of the tumor for the purpose of commanding the orifice of the intestine, when the tumor had been removed. It was also intended to tie the vessels as they were cut. The first vessel which was cut was tied, but the recurrent hæmorrhage was so furious that the safety of the patient demanded a more summary mode of proceeding. So the dissection was then conducted with great rapidity, without regard to the vessels. The tumor was instantly removed, and the gush of blood which filled the area of the anus for a moment was truly appalling. The hand and arm of the operator was at once introduced into the rectum and the bleeding arrested. The beef's gut was then inserted and the iced water pumped in. The only blood lost was at the moment of the gush, and it is believed not to have exceeded one pound or a pound and a half at the outside. The patient fainted, but under the influence of cordials and mustard plasters, with warmth, she gradually but steadily rallied.

At 4, P. M. the pulse had become calm and good. She smiled and conversed. The nausea and retching which at first proved so distressing, passed away.

7, P. M. The sickness of stomach and hawking returned, and seemed to be produced by an oozing of blood from the gums, to which she had been subject. During the night a continual vacillation was observed, sometimes the case brightened and sometimes lowered, until four o'clock, A. M., when she began evidently to go down hill. Without having suffered any pain, for she constantly, when asked, said she was easy, with the exception of the occasional nausea, she sank at twenty minutes before six.

AUTOPSY.

In the presence of the class and a large number of medical gentlemen who witnessed the operation, a post mortem examination was conducted in the theatre, at two, P. M. The beef's gut was ruptured. The gut was no doubt ruptured in the last convulsive throe of life, for at that moment a large discharge of *water* took place per anum. *Not one drop of blood* or water passed externally after the operation, and upon laying open the abdominal cavity, a solitary clot about the size of a hen's egg was seen, fringing the lower margin of the rectum. The peritoneal reflection over the rectum was necessarily divided in the removal of the tumor.

The length of these reports admonishes me to close. A number of minor operations have been witnessed by the class, including several cases of hydrocele, treated successfully by the tent. Several interesting cases of tenia capitis and syphilis, with cases now under treatment, are reserved for the next number. I cannot conclude, however, without acknowledging my obligations to my colleagues, Professors R. W. Hall and S. G. Baker, for their counsel and assistance on several occasions; and I shall never forget the promptness in moments of action, and sleepless vigilance afterwards, which so highly distinguished Drs. George Miltenberger, George Reeder and Samuel Ridout, resident students in the Infirmary, and now graduates in medicine.

The brilliancy of an operation is witnessed in the operating theatre—the flush of triumph in the moment of success is there seen. But the anxious vigils, during the gloomy hours of night—secondary hæmorrhages, requiring the reopening of wounds and searching for small but dangerous vessels—are known only to the patient, the surgeon and his assistants. It has been my good fortune to have had the benefit of the rare intelligence and attention of these gentlemen, whose character in the Infirmary, I trust and believe is an earnest of their future distinguished success.

WM. N. BAKER, M. D.

Prof. Anatomy in the University of Maryland, and one of the Surgeons of the Baltimore Infirmary.

March 28th, 1840.

MUSCULAR ANOMALY.

Sternal foot of the sterno-cleido. mastoid.	Fig. 1.
Sterno-hyoideus,	" 2.
Sterno-thyroideus,	" 3.
Origen of omo-hyoideus,	" 4.
Two anomalous muscles,	" 5 5.
Sterno-hyoideus,	" 6.
Sterno-thyroideus,	" 7.
Thyroid Gland,	" 8.

MESSRS. EDITORS,

The subject in which this anomaly was discovered was brought into the University of Maryland during the past winter. The superficial muscles having been laid back as represented in the plate, two beautiful, well-developed muscles were seen taking their origin from the lower margin of the thyroid cartilages on either side. That on the right side was narrower and longer, and crossed behind that on the left, which was broader and shorter. After having passed each other, they expanded into the common fascia which continues behind the sternum into the anterior mediastinum.

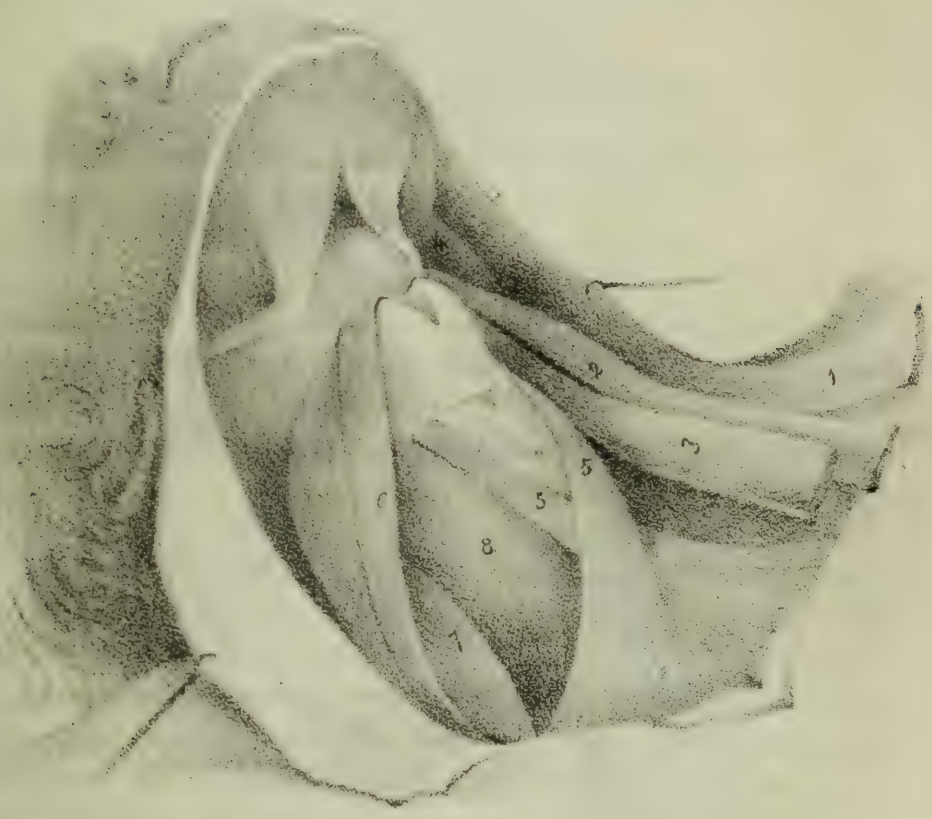
I had an opportunity of displaying these muscles to the class, as it was upon this subject the muscles of the neck were demonstrated.

I am, with high consideration,

Yours, &c.

WM. N. BAKER, M. D.

Professor Anatomy University of Maryland.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PHARMACY.

PHARMACEUTICAL ESSAYS.

By James Hamilton, *M.D. and* Thomas G. Mackenzie, *Pharmaceutist, Baltimore.*

No. 1.—CYANIDE OF POTASSIUM.

This valuable and interesting compound is now daily becoming more frequently employed as a medicinal agent, and as a substitute for hydrocyanic or Prussic acid, presents one of the most interesting examples of the many improvements of chemical agents in pharmacy.

The difficulties attendant on the use and administration of hydrocyanic acid in many diseases are numerous, arising from the fact, that being composed of elements having a disposition to become easily separated and readily acted on by the imponderable agents, numerous precautions are always necessary in its preparation and preservation. The many processes also adopted, and the variable strength of the acid obtained from them, render it imperative on every one who prescribes or administers it, to be fully satisfied that the article in use is of the proper strength.

With all the precautions however that could be adopted, numerous instances are on record in which, in the most skilful hands, the acid obtained by one process has been administered for that obtained by another with the most fatal results, and it has only been the adoption by all pharmaceutists of a process for an acid of a *medicinal* strength, that has continued it in use as a remedial agent to this time.

Besides, it is a preparation requiring the greatest care to prevent its undergoing decomposition; thus it must be excluded from the influence of light, and in consequence of its volatility and affinity for aqueous vapor, it requires to be kept in well stopped

bottles, and even then, with all these precautions, it is liable to spontaneous changes, occurring more rapidly in proportion to the strength of the acid, announced by a change of color, the evolution of ammonia, and the deposition of a black mass; circumstances which compel the pharmaceutist to prepare it frequently, and the manipulations of the article, from its deleterious nature, subject him to some personal risk during its preparation.

The use of the cyanide of potassium as a substitute for this acid frees him, however from this risk, furnishes the physician with an article upon which, (*when properly prepared*) he can confidently rely is unalterable, and can be kept for any length of time, and always being of the same chemical composition, removes altogether the difficulties arising from acids of different degrees of purity.

To the celebrated French pharmaceutist, Robiquet, we are indebted for the mode of preparation generally adopted, viz. to expose the ferrocyanuret of potassium, (a double cyanuret of iron and potassium,) to a red heat, in an iron bottle or crucible, so long as any fumes are disengaged. During the process, nitrogen passes over, and quadricarburet of iron and cyanide of potassium remain in the form of a black mass; to this a sufficient quantity of water is to be added to dissolve the cyanide, which (hydrocyanate of potassa,) is to be filtered and evaporated in an exhausted receiver by means of sulphuric acid.

This is the process as generally recommended, but as it is tedious, very inconvenient, and by no means accurate, its use should be discarded. It is inaccurate, because in the common process it is generally evaporated to dryness by *heat*, and when heat is employed the salt is generally left *moist*, or if urged sufficiently to *dry* it, the increase of the temperature causes decomposition, as the mass immediately blackens and gives off ammonia. Hence much of the cyanide sold under that name, presents a greyish or even blackish appearance, from the deposition of carbon, is moist, and is thus liable to the same objections as regards facility of decomposition as hydrocyanic acid itself, and in either respect is totally unfitted to fulfil the indications of the physician.

To counteract these difficulties, it has been proposed to use another solvent, viz. alcohol; one in which it is less soluble, but which can be evaporated at a lower temperature and with less risk of decomposition. The precaution should however be taken to

have it as pure or free from water as possible, as any quantity that it may contain will necessarily remain in combination with the salt, after even the whole of the alcohol shall have been evaporated, and thus will give rise to the same objections that have already been urged against its use when moist.

The process which has been found most convenient and simple is to expose, say ℥ 4. of the dried ferrocyanuret of potassium in a common Hessian crucible to a red heat, until nitrogen ceases to pass over, (generally taking one and a half to two hours,) then breaking the crucible powder the black mass quickly, and add, say sixteen fluid ounces of alcohol, stirring the mixture repeatedly, until it acquires the temperature of about one hundred and fifty, Fahrenheit, then filter and evaporate by a sand or water bath regulated so as to be below the boiling point of alcohol;* the evaporation should be carried on so as to have as great an extent of surface exposed as possible, and the four ounces of the ferrocyanuret will be found to have yielded six to seven drachms of the cyanide, dry, inodorous and perfectly white. In the manufacture of it on a larger scale, it may become necessary, from the quantity of alcohol used, to distil it over and thus preserve it, which can readily be affected by placing the evaporating capsule, containing the alcoholic solution, in a small still, and the whole on a sand bath heated to about two hundred and ten, Fahrenheit; but if even the alcohol be not recovered, the cost of the cyanide will be still comparatively trifling.

The cyanide should always be kept in close glass stoppered bottles, so as to protect it from aqueous vapor or carbonic acid; and the further precaution of covering the bottle with black or blue paper, to prevent the agency of light, if it should become accidentally moistened, may also be used. It may be asked why such precautions are necessary in a permanent salt? but as the bottle containing it may be opened several times a day, in fulfilling a prescription, it is at least prudent for the credit of the pharmaceutist and the satisfaction of the physician, to observe them. Half a grain of the cyanide of potassium is equivalent in strength to a drop of the medicinal hydrocyanic acid.

Baltimore, April 10th, 1840.

* If heated above this temperature, oil of wine is formed, which is gradually decomposed during the process; carbon is deposited and blackens the mixture.

REVIEWS.

Anatomical, Pathological and Therapeutic Researches on the Yellow Fever of Gibraltar of 1828. By P. Ch. A. Louis, Physician to the Hotel Dieu; President for life of the Society for Medical Observation of Paris; Member of the Royal Academy of Medicine of Paris; Honorary Member of the Massachusetts Medical Society, &c. &c. &c. From Observations taken by himself and M. Trousseau, as Members of the French Commission at Gibraltar. Translated from the manuscript, by G. C. Shattuck, Jr., M.D., Member of the Society for Medical Observation at Paris; Fellow of the Massachusetts Medical Society. *Boston:* C. C. Little & James Brown—1839. 8vo. pp. 374.

This is the third work of M. Louis, which the enthusiasm of his pupils has placed in the hands of the profession in this country. All his productions have now been translated into English, with the exception of his Anatomical and Pathological Researches; and works more valuable, and calculated to inspire a proper spirit of correct medical investigation are not to be found. The present work, though written nine years since, has not yet appeared in France. The reasons for this are given in the author's preface. The French government desirous of information on the origin and mode of propagation of the yellow fever, appointed a commission consisting of M. M. Chervin, Trousseau and Louis, to go to Gibraltar and collect such facts as might lead to the solution of the problem. Independently of the task which the government had imposed upon them, M. Louis and M. Trousseau felt that it was a duty they owed their profession, to study the disease before

them, and this too, more carefully, if not more minutely, than they would have studied an ordinary malady. After the cases had been carefully observed, a division of labor was agreed upon.

"The study and analysis of the facts," says M. Louis, "could not be a joint production, as every one must be aware. I assumed this task, and devoted myself to it immediately on my return to Paris, so that the work now presented to the public, has been completed nine years. M. Trousseau undertook to analyse the documents collected by the commission, in relation to the origin and mode of propagation of the yellow fever of Gibraltar, and to ascertain if any rigorous conclusions could be drawn in favor of contagion or of infection. Circumstances have prevented M. Trousseau from completing this undertaking, nor have I been able to engage in it, so that the analysis which would naturally occupy a chapter in this work is necessarily postponed." Preface, xx.

Dr. Shattuck, conceiving that in this country, where almost every summer this disease commits its direful ravages in our southern states, this book, which in France might only possess the interest of curiosity, would here subserve the higher end of benefitting humanity, proposed to M. Louis to translate the manuscript. To this proposition he assented, and thus it happens that we are put in possession of the work, through the medium of a translation, before the original has appeared in the author's own country.

The book itself is characterised by that spirit of strict investigation and close analysis which marks all the productions of this author. A glance at the preface will show the object of the work and indicate the spirit in which it is written; and though we cannot look upon it as a complete treatise on yellow fever—for the author insists particularly on its being a history of the epidemic at Gibraltar in 1828—still it is the most valuable contribution which has yet been made to our knowledge of the true pathology of this disease. No author who has heretofore written upon the subject, can be fairly compared with M. Louis; their remarks refer for the most part, to the mooted question of contagion or non contagion; the history of the origin and progress of the malady; a general sketch of symptoms, or the advocating particular modes of treatment. Most of them have been men, who found themselves in the midst of an epidemic, with disease and death stalking around them, their time fully occupied in attending the sick, circumstances which made it impossible to bring to the investigation of the disease, that time and deliberation, which would enable them to col-

lect observations, the *written facts* of which they might analyse at their leisure, instead of trusting to the general, and often fallacious, impressions of *memory.* The work occupies a limited ground, confining itself strictly to the symptoms, lesions and therapeutical indications of the disease. It fills a void which never could have been filled, unless under the peculiar circumstances, and no man could have brought to the investigation more admirable qualifications than M. Louis. His thorough acquaintance with pathological appearances, his freedom from prejudice, seeing, as he did, the disease for the first time, and investigating it solely with a desire to discover the truth. He has carried out in this, as in his other works, his own peculiar system, of closely noting every morbid symptom, every organic change—has weighed their relative importance, counted, compared them with symptoms and lesions met with in other acute affections; the result has been that he has *discovered* what is special to yellow fever, and has added certainty to our previous knowledge of the symptoms, lesions, and diagnosis of the disease, results highly important to those who are from their location, called upon to treat it; for, as Ballonius observes, "*antequam de remediis statuatur, primum constare oportet, quis morbus, et quæ morbi causa, alloquin inutilis opera, inutille consilium.*"

But to arrive at the work itself; it is divided into five separate heads or parts. In part the first, according to his usual plan, he commences by giving five complete histories of cases with all the details of their symptoms, treatment, and post mortem appearances, in order to give the reader an idea of what the disease is, and prepare him, as it were, from an actual acquaintance with it as seen in several different forms, to go on with the author, in his deductions drawn from an analytical expose of what was observed in the twenty-five cases which form the *materiel* on which the work is based; he giving the whole of the cases in the course of the work, whenever, in illustration of some position, their introduction seems apposite.

In the second part, M. Louis gives a general description of the viscera, and a statement of the comparative frequency with which certain lesions are met with in yellow fever, and in cases of other acute diseases which die in Paris, as well as of those pathological conditions which are special to this disease. As he has performed

this task more thoroughly than any other author, so is this, perhaps, the most important section of the work. The cases almost all occurred in soldiers, consequently they were in the prime of life and full vigor of health when attacked. Great rigidity occurred in all and took place rapidly after dissolution. The yellowness of the skin, from which the disease has derived its name, as being one of the most striking symptoms, existed with only three exceptions. There was hæmorrhage in the muscles in one case only, where the superficial muscles of the calves and hams were infiltrated with blood. The brain and spinal marrow, though constantly presenting some slight deviations from the healthy standard, evidenced nothing peculiar to this disease. Even the most serious alteration, the rose or livid color of the cortical substance of the brain and cerebellum, is more frequently observed in patients who have been carried off by typhoid, than in those who die of yellow fever. The yellow tinge of the fluid, contained in the ventricles of the brain, mentioned by some authors as constant, occurred only in a few cases.

The air passages presented nothing remarkable; but in the lungs a lesion was frequently met with, strongly resembling that described by Laennec as pulmonary apoplexy. This appearance is peculiar to those dying of yellow fever, and is interesting, as connected with the hæmorrhagic tendency in this disease, a disposition depending in all probability upon some primitive change in the circulating fluid itself. We will extract M. Louis' own description.

"The lesions met with, were either black spots of from two to five lines in diameter, or masses of the same color, more or less impermeable to the air. The spots were found in nine subjects, sometimes without complication, sometimes with the lesion of which we have just spoken. Usually of a brown black, rarely of a crimson hue; they were more or less concentrated, and occupied a variable space at the exterior or in the interior of the lung. Placed on a rose or red ground, the tissue in the midst of which they were placed had a spotted appearance. The density of the tissue which was the seat of them, was not manifestly increased except in two cases; this increase of density being the manifest result of an effusion of blood more or less intimately combined with the pulmonary tissue. The black, or blackish masses existed in six individuals; they contained no air, they had not the granulated aspect of the hepatised lung, they presented but slight traces of organization, so that merely some cellular fibres irregularly dis-

posed, might be distinguished in them. Usually they could be easily broken down, in some cases also they yielded by pressure the blood of which they were almost entirely composed, and the pulmonary parenchyma remained apparently of its natural consistence." p. 65.

In other respects the lungs and pleuræ presented fewer alterations than in the majority of subjects who die of other acute diseases; a circumstance which M. Louis refers to the rapid course of the disease, and to the moderate violence of the febrile movement. In his other works, and in his clinical lectures, he has always labored to impress this fact upon his students, laying it down as a law, that whatever may be the primitive or special lesion, characterising constantly any given disease, if we examine every organ closely after death, we find many alterations less constant, the number and gravity of which, is in direct proportion to the violence and duration of the febrile movement. Hence there is no comparison to be established between the frequency of secondary lesions observed in the bodies of those who die of typhoid, and those who die of yellow fever, or indeed of almost any other acute disease; few proving so rapidly fatal or being accompanied by so trifling an excitement of the circulatory system.

Upon the digestive apparatus, this disease appears to exert its most violent action. The æsophagus was completely deprived of epidermis through its whole length in a third part of the cases, and partially so in a greater number. The stomach was larger than natural in seven subjects; smaller than usual in three. It contained a clear, or dark red colored liquid, a blackish or a perfectly black fluid in three-fourths of the cases. Its mucous membrane was red through a greater or less extent in six cases; rose colored or orange in eight; greyish, yellowish, or whitish in the others. It was thickened through a greater or less extent in half the cases; softened and yellow to an extreme degree in the same number: at the same time thickened, softened and red, in a third part of the cases; mamelonnated in two-thirds; ulcerated in two cases. Finally, the mucous membrane had its natural thickness, consistence, and aspect, was not mamelonnated, and presented only slight alterations of color in five cases, so that in one-fifth, the mucous membrane may be considered as healthy.

The black vomit is a symptom so constant in this disease, that

it has even derived one of its names from it; and as it is constant, so is it peculiar. M. Louis regards it as in part composed of blood, the vessel in which it was kept, and the bodies plunged in it being stained red, and considers it the product of exhalation, depending upon a specific cause, probably the same with that of the yellow fever itself. This explanation is far from being satisfactory, but in view of the facts, it is perhaps impossible to arrive at any stricter conclusion. Dr. Ashbel Smith, a notice of whose memoir on the yellow fever at Galveston in 1839, is inserted in the last number of the American Journal, thinks "that the essential pathological conditions of the stomach in fatal cases are, the engorgement of the mucous membrane of the stomach, which is relieved by the formation or secretion of the black vomit, a process fatal to the vital uses of the tissue, and of course fatal to life when a large portion of it is involved. This engorgement is not a condition similar to gastritis, at least in its common forms—does not give rise to the same aggregate of symptoms, does not present essentially the same pathological appearances, and its terminations are altogether unlike." This explanation of the etiology of black vomit is exceedingly ingenious, but will hardly bear the test of severe investigation. His own account of the morbid appearances discovered in the stomach in seven cases, will scarce sustain his theory, and if we take the changes as described by M. Louis where in one-fifth of the cases it was healthy, it must follow that a lesion of this organ is not essential in yellow fever; that it is not a gastritis; and though pretty constantly diseased, it was only so secondarily, and at a certain period from the commencement of the attack. M. Louis says—

"Here too we may again remark, that the inflammation of the mucous membrane of the stomach was never intense, since it was never very red nor very much softened. All that we can conclude from these facts relative to gastritis is, that the yellow fever of Gibraltar of 1828, had a particular influence in its development, since it was more frequent and came on nearer the commencement of the principal disease, with which in some cases it would appear to be confounded, than in any other acute affection." p. 99.

The duodenum and small intestine, were altered more or less, as in other acute diseases, and contained a special black matter, which in some cases, there was reason to think was secreted from their walls. There was nothing remarkable however in their color,

consistence, or glandular developments; in this latter peculiarity differing strikingly from typhoid fever. The large intestines were still more than the small, free from lesions of any kind.

The size of the liver was natural in all but two cases, where it was larger than usual. Its firmness somewhat increased in three cases; diminished in five. Its cohesion increased in five; diminished in five others.

"But the most remarkable lesion of the liver, was the alteration of its color, which was more or less exactly the same in all the cases. This alteration consisted in a discoloration, the liver being sometimes of the color of fresh butter, sometimes of a straw color, sometimes of the color of coffee and milk, sometimes a yellowish gum color, or finally, sometimes an orange or pistachio color. This discoloration was not the same through the whole extent of the liver; more marked in the left than in the right lobe; it was also more uniform. With the discoloration of the liver we found a more or less marked paleness, and a diminished quantity of blood, so that wherever this appearance of the liver was well marked, the sections of it were dry. This paleness, this anæmic state of the liver is the more remarkable as no other viscus was found in the same condition, and many of them, as the lungs and stomach, contained a greater quantity of blood than usual. Nor can we regard this alteration of the liver as the product of inflammation. In almost all the cases, the organ preserved its usual size, its firmness was as great, and it contained less blood than in its natural state. In the present state of the science it seems to me impossible to determine the nature of this alteration; nor is the cause of it less difficult to be ascertained. It was most marked in a case terminated by death three days and some hours after its commencement. From this fact we must place the commencement of the lesion either at the same time with, or soon after the commencement of the disease itself. But the most remarkable fact is, that the liver is the only organ, *constantly* and more or less uniformly altered in subjects who have died of the yellow fever of Gibraltar, and whom we have opened. Nor is this alteration found in subjects dying of other diseases, so that we must necessarily consider it the anatomical character of the yellow fever." p. 120.

These alterations of the liver, M. Louis then regards as the special anatomical character of this disease, and his belief in this matter would seem to be confirmed by M. Rufz, of Martinique, who has recently informed M. Louis by letter, that the lesion met with by him at Gibraltar in 1828, has been found in all the cases observed by him at Martinique, and that this is the only constant and uniform lesion. Dr. Smith, to whose paper we have already

referred, says that the stomach and liver were the only two organs which have invariably suffered. He describes the liver in the seven autopsies he made, as being of its usual dimensions and form, without any obvious structural derangement; in three cases of a very light color externally and internally, destitute of blood. In one of a dark claret color; in the others of its natural appearance. Dr. Hume says, that in several dead bodies he examined, the liver was of a pale yellow color. Chisholm made five autopsies, and the liver was of a color nearly approaching to buff, or a mixture of yellow and the color of ashes. Mr. White made several autopsies and found the same. In the work on the yellow fever of Catalonia, by Bally, François, and Pariset, there are several cases given, but unfortunately with few details; however, in almost every one the liver is mentioned as being yellow. In the anatomical researches made at Barcelona, the liver was of a saffron color. Gillkrest says, light olive patches are sometimes observable, and the liver is sometimes of a pale olive, or mixture of green and yellow.

We have extracted nearly at full length, the description and the remarks of M. Louis on this peculiar alteration of the liver, and shewn that many others have noticed the same thing in other epidemics, from which we may conclude that the appearance was not peculiar to the fever of Gibraltar, but is a special alteration, met with wherever yellow fever exists. This discovery is a beautiful illustration of the results flowing from the application of his peculiar system of studying medicine—observing every case as if it were perfectly new, and isolated. Not content with noticing the more general and striking features of a disease, but closely observing every symptom, no matter how trivial in appearance; examining after death not those organs only which from the symptoms during life, we might be led to suppose were those principally affected, but every organ; and when this has been done, laboriously and carefully, comparing, weighing, analysing, counting the facts, and deducing by this process conclusions, which as they are mathematically precise, may be laid down as absolute laws. As no other author has so accurately described every pathological condition met with in his autopsies, and those who have said any thing about the color of the liver, mention this yellow appearance as being frequently met with, we can only account for its being

overlooked by others, because they sought in this viscus, more obvious traces of an inflammatory process, and more striking evidences of structural derangement.

The gall bladder contained less bile than in subjects dying of other acute diseases, particularly typhoid fever; there was no obstruction in the biliary ducts in any case, to account for the yellowness of the skin. The spleen, kidneys, bladder, and other viscera, offered nothing to arrest attention.

In the next chapter, on the causes of death, M. Louis, reviewing all he has seen, asks the question, how far the lesions met with may explain the causes of death. In eight of the twenty cases, where all the organs were examined, the death of the patients remained unexplained by the condition of any of the organs; it was difficult if not impossible to explain it in five others; in seven it was sufficiently satisfactory, and in these cases it was a violent gastro-enteritis. The objection of Holland has often been urged against M. Louis, that "one of the most striking errors of pathological works, is the almost exclusive attention that is paid in them to the examination of organs, primarily and chiefly diseased, to the utter neglect of the consideration of the various effects they produce, which frequently convert a general into a local affection." How far M. Louis is obnoxious to this imputation, the candid reader must judge. After presenting his facts, he draws his conclusions, and on this point let him speak for himself.

"And if observation shews that there is something in disease beyond what we see, that its cause has sometimes a great deal to do with the death of those who are attacked by it, this double proposition is more evident here, where we must admit that the cause of the disease often kills by itself, or independently of appreciable alterations of the organs, and even up to a certain point, of apparent derangement of the functions. We must remember that nearly the same thing happens in many cases of poisoning." p. 145.

This idea pervades the book, and is frequently introduced into the reflections that follow each case, that the cause of the disease is a *poison*, acting like some violent poisons, but upon what system or upon what viscus, from the facts he cannot say, and this cause of the disease itself, he conceives to act as a cause of death. The profession no longer dazzled by the *prestige*, which for a time surrounded the opinions of Broussais, are now returning to

their old faith; and though pathological anatomy has done much service to humanity, in discovering the most prominent lesions accompanying diseases, giving certainty to diagnosis, and enabling us to direct a more rational treatment to their cure; it can never elucidate all the mysteries of disease, particularly of febrile diseases. Fevers are not diseases produced by the lesion of a single organ, or of a single system of organs, but there is a simultaneous lesion of several organic systems, and they should be distinguished from simple inflammations. What is their ultimate cause, our means of investigation in the present state of science do not permit us to discover. But the oft-repeated assertion of Andral is undoubtedly true, that "the organic lesions, discoverable after death in fever, will not in many cases account for the violence of the symptoms, nor the fatality of the disease."

In part the third, M. Louis gives a general description of the symptoms as they were met with, dividing the cases into four series, and then goes on to analyse each symptom in its turn—to give its comparative frequency and importance, the exact time of its invasion, and to shew how far its existence is to be explained by the previously obtained results of post mortem investigations. In no part of the work does the accuracy and precision of the author more forcibly impress itself upon us than in this. We recommend this part to every student of medicine as a model of strict deduction, and close reasoning from facts.

Headach was a prominent and early symptom, lasting through the first half of the disease, and as it preceded the gastric symptoms, cannot be looked upon as sympathetic of the condition of the stomach. It was never wanting, and was most severe during the first two days. There was also an indefinable state of malaise, much more marked in this, than in any other acute affection. Pain in the back and limbs, was very severe in every case; these pains came on, with two exceptions, the first day of the disease. The debility was not very great, much less than in typhoid fever; from this M. Louis concludes, that the cause does not act by prostrating the strength of the patient. There was no deafness in any case, no ringing of the ears, no epistaxis. These symptoms, debility, deafness, ringing in the ears, and epistaxis occur so constantly in typhoid fever, that they may be looked upon almost as pathognomic in that affection, and their total absence in the

disease under consideration, would serve even if there were no other distinctive marks, to guide us in a differential diagnosis between the two affections. Chills were constant at the commencement of the attack, and in some cases were repeated. The subsequent heat was never very great, falling much below the natural standard in some cases, as much as a day or two before the fatal termination, so that the feeling of the limbs was disagreeably cold to the touch, and this took place usually coincident with the gastro-intestinal hæmorrhage. The reaction as indicated by the pulse and skin, in all cases was inconsiderable. Epigastric pains were very common, the first and second days of the disease, but they were not constant.

"Their seat," says M. Louis, "seems to indicate that they were caused by an alteration of the mucous membrane of the stomach, which was more or less inflamed in all the cases where they were present, excepting one where the disease was long. This proposition admitted, it would seem to result that the inflammation of the gastric mucous membrane commenced with the first symptoms in two of these eight patients. This, however, does not follow necessarily, for many patients complain of epigastric pains, at the autopsies of whom we find no appreciable lesion of the mucous membrane of the stomach." p. 213.

Broussais says, that yellow fever is but a gastro-enteritis aggravated by atmospheric heat, which causes it to pursue its course with an activity unknown in temperate climates, and that the yellowness depends upon inflammation of the small intestine, and of the duodenum especially. The majority of authors, who have attempted to explain the phenomena of this disease, by referring it to an inflammation of some organ, have attributed it to an inflammation of the gastro-intestinal mucous membrane; but after the facts which our author has laid before us in this chapter, it must remain proved to every philosophical mind, that, however common a secondary affection this may be, it cannot be looked upon as a cause of the disease, nor even as a necessary concomitant. Another fact which M. Louis brings to prove his position, is the astonishing rapidity with which the appetite is recovered as the fever subsides. Nor are the symptoms of intestinal inflammation more satisfactory. The abdomen universally preserved its natural form throughout the disease; there were few pains, none over the region of the liver. There were no spontaneous stools in

any case, and where provoked by purgatives, they always ceased on their withdrawal, a strong proof of the slight tendency of the intestinal mucous membrane to inflame in cases of yellow fever.

The respiratory system presented no remarkable symptoms; hiccough was always a fatal sign. There was no hemoptysis in any case, notwithstanding the appearances met with in the lungs, so strongly resembling in physical characters, pulmonary apoplexy. Hæmorrhages took place in four-sevenths of the cases, from the gastro-intestinal mucous membrane; and in a few from other parts. M. Louis does not appear to have met with this symptom so frequently as other writers who have described this disease, all of whom have more or less insisted upon its frequency, and some of whom have argued from it, a change taking place in the constituent elements of the blood.

The mortality, says M. Louis, among the six hundred individuals, short histories of whose cases were taken, was one in six and a half; in the city it was, according to tabular statements, as one in four and a half. It was greater among men than in women and children. This statement, though no doubt true as regards the epidemic of Gibraltar in 1828, cannot be regarded as a law of the disease, for its severity differs very much in different years in the same locality, sometimes scarcely any recovering. Dr. Gillkrest says, that in the early part of the Gibraltar epidemic of 1828, very few recoveries took place at the civil hospital; of the first thirty-five Jews received in the establishment, all were swept away but one. According to Dr. Hennen, in two corps the loss was one-half of the whole number of cases. Rocheaux says, that at Barcelona in 1821, nineteen out of twenty proved fatal at the commencement of the epidemic; towards the middle of the disease it became less, and towards the close was only two-thirds. These facts would seem to militate with those brought forward in the next chapter by M. Louis, who endeavors to prove that the disease and its proportionate mortality were the same throughout the whole course of the epidemic. That the disease was the same, there is no reasonable ground for doubting; but that the mortality in proportion to the whole number of cases was the same, at the beginning and at the close of the epidemic, the well known law in relation to epidemics in general, *that they diminish in severity towards their close*, and the statements of Dr. Gillkrest in relation to this very epidemic of 1828, would seem to contradict the statement.

In the chapter on diagnosis, we have this disease compared successively with typhoid fever, hepatitis, and gastritis, the three diseases with which it might most easily be confounded, and the differential characters clearly marked out. Although there is no symptom but the black vomit, which can be considered as pathognomic, and this is generally wanting in mild cases, still the symptoms when taken *en masse* are sufficiently characteristic. Doubts may arise in some rapid cases at the commencement of the epidemic, where the symptoms are obscure, but if the alteration of the liver, first laid before the public in the present work as special to, and characteristic of the disease, be as we believe so characteristic, even in these doubtful cases the point may be settled by post mortem investigation, and such hygienic precautions taken by isolation from the infected locality, &c. as experience and judgment may direct.

The fourth part, is very short, and is devoted to the treatment. As the cases observed by M. Louis were but very few in number, no general conclusions in therapeutics can be deduced from them. He compares, however, the treatment of the soldiers with that of the inhabitants of Gibraltar, and finds the results to vary but little, all circumstances being taken into the account, between the English and Spanish systems of treatment. The treatment which he himself advocates, is a gentle and non-perturbing course: moderate bloodletting in some cases at the commencement, acidulated drinks, enemata, fomentations to the epigastrium. He adds:

"The condition of the liver should also engage our attention; since in all the cases, its alteration appeared to commence with the first symptoms, and perhaps many therapeutical agents might be directed against it. Unfortunately the nature of that alteration is unknown to us, so that we cannot propose a remedy to be used against it with any chance of success. The discovery of the remedy must be left to time and chance, and to the acuteness of the observer, for experience has sufficiently proved that no dependance is to be placed on mercurial preparations of any sort." p. 337.

In part the fifth he examines the question, whether sporadic cases of yellow fever ever occur at Gibraltar. From an analysis of facts afforded him by Messrs. Amiel and Fraser, he admits that it sometimes does, but adds—

"All that we can conclude, the existence of sporadic cases of

yellow fever being admitted, is, that this fever may be developed at Gibraltar, independently of any thing coming from America. To conclude absolutely, that the yellow fever is not contagious, would be to go beyond our facts, and if this conclusion be the expression of the truth, it can result only from another class of facts." p. 374.

We have thus reviewed some of the most important features of the work before us—a work which we can cordially recommend to those of our southern brethren, who have almost every summer frequent opportunities of seeing the disease. So far as it goes it is complete, and an admirable specimen of strict inductive reasoning from facts, introduced into medicine. We regard with pleasure, the appearance of M. Louis' three most important works in this country, feeling convinced that no better books could be found in the hands of the conscientious student of medicine, and hoping that the same impulse may be given by them to the profession here, as has been in France, where a new and more scrutinising spirit of observation has been excited, and speculation and brilliant theories exert far less influence on the medical world, than strict deductions from well observed facts. We have many diseases peculiar to this country, which still need to be elucidated, and we should be happy to see monographs written upon them, in the same spirit that characterizes this. Who has yet thoroughly studied over our own bilious remittent fever—the country fever of South Carolina, &c., or demonstrated the lesions and symptoms pathognomic of these diseases? and when will the errors taught and practised in them by the mass of the profession, be swept away by the announcement of their true pathology, and more rational therapeutics?

Our thanks are due to Dr. Shattuck for placing us in possession of this work. Himself a pupil of M. Louis, he has imbibed deeply the principles of his preceptor, and as a testimony of his esteem, has acted as his interpreter to us. M. Louis is not a graceful writer; his style is abrupt though precise, and filled with idioms, is difficult to translate. The translation is free and lucid, and though we have no opportunity of comparing it with the original, we are sure it is a correct one, and gives the sense of the author throughout.

W. P.

A Lecture on Loxarthus, or Club Foot. By Thomas D. Mutter, M.D., Lecturer on Surgery, Fellow of the College of Physicians, Member of the Academy of Natural Sciences of Philadelphia, Honorary Member of the Medical Society of Philadelphia, &c. &c. pp. 104.

Memoire sur la Cure Radicale des Pieds Bots. Par M. Scoutetten, D.M.P., Professeur en Medicine, Agrégé à la Faculte de Strasbourg, Chirurgien Major, Professeur de Medicine Opératoire, Membre de l'Academie des curieux de la nature de Berlin, de la Societe Royale de Médicine de Copenhague, de l'Academie Royale de Metz, de l'Academie Royale des Sciences de Toulouse, de la Societe Medicale, d'Emulation, de Paris, de la Societe Royal des Sciences de Tille, de la Societe des Sciences du department du Bas Rhin, de la Societé Royale de Medicine de Marseille, de la Société Philosophico Médicale de Wurtzbourg, &c.

Memoir on the Radical Cure of Club Foot. By H. Scoutetten, D.M.P., Professor of Medicine, Adjunct Professor in the Faculty of Strasbourg, Professor of Operative Surgery, Member of the Academy of Natural Sciences of Berlin, of the Royal Medical Society of Copenhagen, of the Royal Academy of Metz, &c. &c. &c. &c. &c &c. With six plates—translated from the French by F. Campbell Stewart, M.D., of Williamsburg, Va. American Medical Library.

There is no subject in surgery which occupies more of the attention of the medical profession at this time, than that which forms the text of the present article. Nor is this interest confined to medical men; it has also received much of the attention of the public.

Within comparatively a recent period, a new department has been much cultivated in surgery, called plastic surgery, having in view the removal of deformities. The improvements in this department, so closely associated with the self-love and the comfort of mankind, have been truly remarkable, and a subject of just pride to the profession.

With the general subject we have at this time no intention of occupying time, but our object is to confine our remarks to that division which has been called orthopœdic surgery, having specially in view the relief and cure of deformities of the extremities of the human body.

Nor is it our intention to entertain our readers with learned abstracts of the information so liberally given by European authors in general on this subject, but rather to aim at giving a digest of the practical matter contained in the two works we have adopted as the texts of this article. In so doing our object is a much more useful one, than of giving a critical analysis of the author. But rather to give so simple and practical an exposè of the knowledge contained, as will enable our readers to carry out in their own practice the valuable information contained in them, on a subject which occupies so prominent a place before the public at the present time, that every medical man should feel ashamed to confess ignorance. In the limits to which we are restricted in the Journal, it will be impossible to do more than give the details of practical value. In the treatment of this subject in order to convey an accurate idea of the different species of deformity, and of the apparatus for relief, the plan of illustration is adopted by wood cuts. This is certainly a new but valuable improvement, for which we have the high precedent of one of the best foreign Journals.

One of the first enquiries that will be suggested, is the cause of club foot. Various have been the explanations offered; such as that it was occasioned by bad position of the fœtus in utero, hereditary predisposition, unequal contraction of the muscles, dislocation of the bones, a deficiency of the liquor amnii, in consequence of which the walls of the uterus contract more forcibly on the child, and produce unusual flexion of the feet—and lastly, that it was owing to the mother's setting too much cross legged, by

which the uterus is caused to contract spasmodically. The best summary of all the facts is given by Scoutetten.

"Congenital or accidental club foot may be occasioned—1st. By an inequality of force between the extensor and flexor muscles of the leg and foot. 2d. By an anormal position of the articular surfaces. 3d. By a mal-position of the fœtus in utero. 4th. By the pressure of that organ on the thin flexible members of the child. 5th. By convulsions in utero. 6th. By convulsions during early childhood. 7th. By a chronic inflammation of the muscles of the leg. 8th. By defective innervation of the tibial nerves caused by disease of the encephalon or spinal marrow without previous convulsions. 9th. By the contraction of the aponeurosis plantaris. 10th. By muscular contraction without any appreciable cause."

Club foot has been arranged under different heads. One author, M. Duval, not contented with the usual medical vocabulary, has introduced new terms from the Greek which deter most persons from the study of the subject at all, and has rather retrograded from the spirit of the day, which is to simplify knowledge and render it more accessible. Take a specimen of his terms: Strephendopodia, or foot turned in; strephexopodia, foot turned out; strephypopodia, foot turned downwards; strephanopodia, or turned upwards; and strephocatopodia, turned underneath—all derived from the Greek word στρεφω, to turn or twist, and ποδος, foot, with the addition of the terms to express upwards and downwards, inwards and outwards.

We give these terms only to reprobate their introduction. Scoutetten's order is preferable to this. He makes four principal varieties of the disease: *Inverted, everted, phalangian* and *calcanian* club foot.

1. Inverted club foot is caused by the solei and gastrocnemii muscles.

2. Everted is the result of the joint action of the peronei and gastrocnemii.

3. Phalangian club foot, by which is meant that form in which the foot rests only on the phalanges, and is caused by the powerful contraction of the gastrocnemii and soleii muscles and aided in some cases by the flexors of the toes.

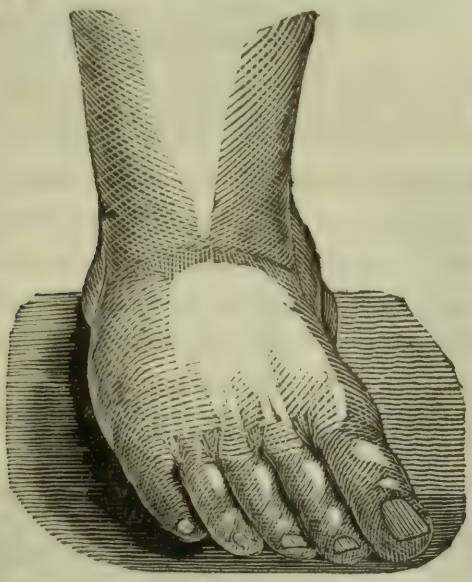
4. Calcanian club foot is where the foot rests on the heel and is caused by the contraction of the tibialis anticus much assisted often by the tendons of the extensors of the toes.

This is a very good division, but we shall adopt for the present article the terms more common and admitted among English writers on the subject. We shall therefore follow Dr. Mutter in the division.

There are *three* distinct species, viz. varus, valgus and pes equinus. The great variety of deformities that exist is believed to be referrible to some of the modifications of one of these general characters.

We shall give that description of these different forms, and the appropriate illustration which will enable the reader at a glance, to gain a more accurate conception of the exact deformity than pages of description.

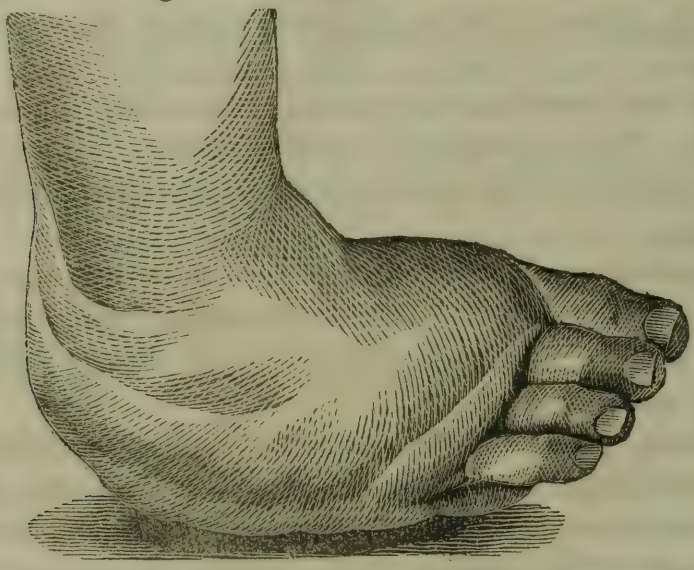
1. *Varus.* General character: Foot resting *upon its outer edge and directed upwards.* There are several varieties of varus. We present here a very good illustration of the simplest form. This is called "pigeon toed or *moon* foot."



Its marks are the whole sole of the foot mostly resting on the earth, but slightly elevated along its inner margin which is curved, and sometimes there is a superficial fissure at the junction of the tarsal and metatarsal bones. External malleolus well marked, but a little *behind* the natural position. Inner nearly disappeared. Instep nearly *natural.* *Heel* but slightly drawn up.

Varus—second variety. Character: *Foot rests* almost entirely on the anterior portion of the outer edge. Inner margin more curved. Great toe turned in. Dorsum of foot nearly vertical,

External malleolus very prominent. Internal nearly disappeared. Junction between leg and foot regular curve.

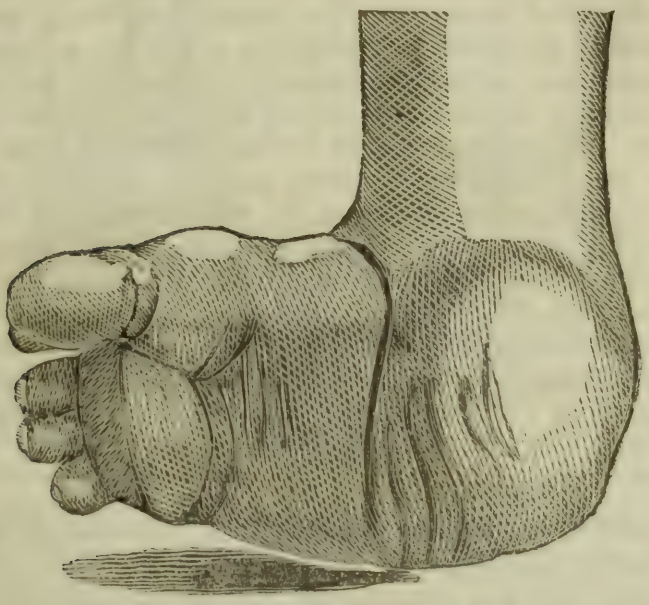


Heel more retracted than first form. This is one of the most common forms of varus, either congenital or acquired.

Varus—third variety. Characters: Foot completely turned inwards, forms an angle either right or sometimes acute with the foot.

Dorsum of foot presents directly in front; sole turned backwards. Outer edge of foot below; inner above. Internal malleolus almost obliterated; external more prominent than natural, placed behind and below its natural position. Dorsum of foot irregular, and more rounded than natural, owing to partial displacement of the

tarsal bones. The sole is generally shorter than usual, divided by one or more vertical and deep fissures, as seen in the annexed cut.



In this form, the foot cannot be brought to a proper position by the hand, but is opposed by the tendo Achillis and the plantar fascia which become tense, and in some cases by the tendons of the tibialis anticus and posticus.

When both feet are affected, the gait of the person is tottering, from the fact that the toes of both are brought nearly in contact, and sometimes overlap so that they revolve around each other in walking, in a semicircular manner.

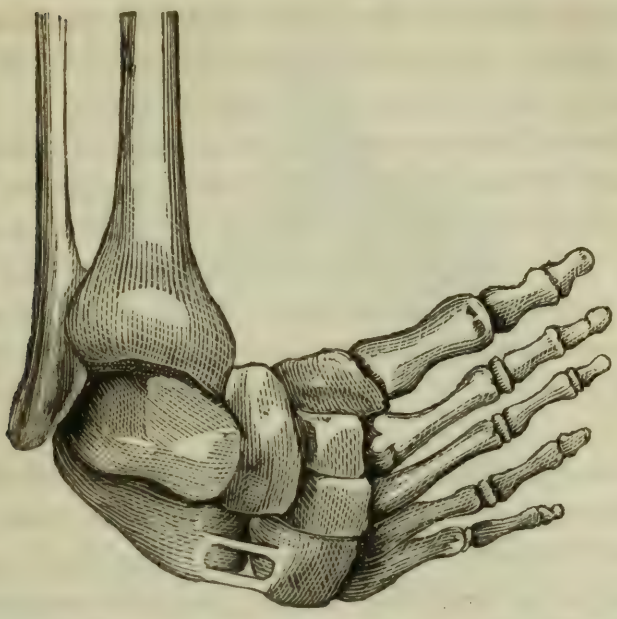
What is the condition of the bones of the leg and the muscles in this form? Contrary to what would at first be supposed to exist, there is no deformity of the bones—"in almost every instance the bones of the leg are unaffected, and the change in the position of the malleoli is due entirely to the inclination inwards of the anterior portions of the feet." But the condition of the muscles is specially deserving of notice. Muscles which are well formed at birth and remain so up to the time the child begins to walk, after that, an evident change is observed to take place. They become gradually smaller, until at length they become almost like ribbons, and the limb is principally formed of skin and bone. But let us study more closely the pathological anatomy of this form of club foot.

"On elevating the skin we are struck with the atrophied condition of the muscles, particularly the gastrocnemius and soleus; the fibres of the muscles will rarely be found to extend lower down than half of the tibia, whereas in a normal state they descend at least two thirds of the way. The tendo Achillis is long, tense, and attenuated comparatively with the age of the patient; the superior aponeurotic portion is especially remarkable for its tenuity. The muscles are frequently found to have degenerated into a soft fatty state. The cellular tissue is condensed and small in quantity. No trace of adipose matter is to be found in the legs of many individuals, unless it be on the sole of the foot. The nerves are, according to my own observation, reduced in size, and the arteries are evidently so. The posterior tibial artery is nearer to the internal edge of the tendon, especially in young children, than it is in the normal state. In many subjects I have found it to be very superficial—an important circumstance, which should always be borne in mind when the section of the tendon is practised. In ancient cases of this disease, the foot is always slightly atrophied; it possesses neither its normal length nor breadth."*

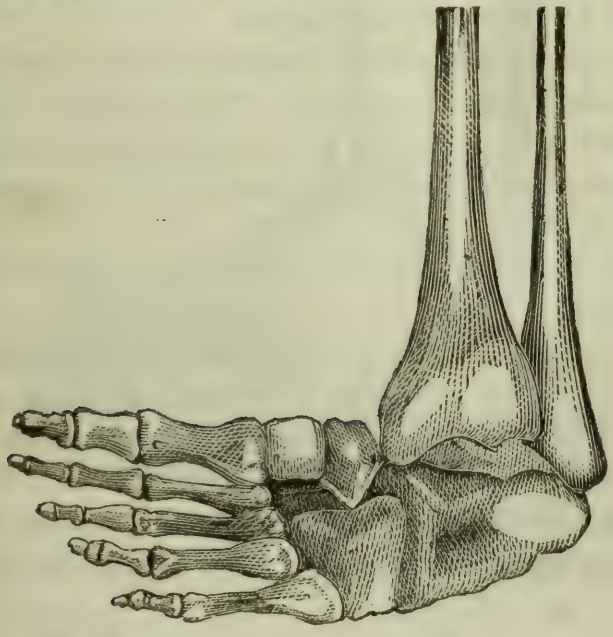
Let us now examine more minutely the condition of the bones, as revealed by dissection of a case of varus. We are assured "that at *no age*, and in no degree, is there a complete *luxation* of the bones of the foot, as some would have us believe. A *deviation* from their normal direction, with *partial* separation of the articulating surfaces, is all that we meet with."† The astragalus is the least changed in its position. At first it is nearly natural; after exercise it is turned inwards, but never entirely disconnected from the bones of the leg. The anterior articulating surface of the bone forms the large protuberance which is observed on the dorsum of the foot, thus rendered prominent by the rotation inwards of the scaphoid bone. This bone is rolled upon its lesser axis, and is thus placed obliquely across the extremity of the astragalus. Its internal tuberosity is carried upwards and inwards towards the internal malleolus, while its external is depressed. The *cuboid* is separated from the os calcis and turned upon its lesser axis.

This change of situation produces a lengthening of the ligaments and considerable depression over the joint. This bone receives a great part of the weight of the body, and is therefore flattened and almost always covered by a large bursa mucosa, the integuments being thickened and callous.

* Scoutetten. † Mutter.



The os calcis is more thrown out of its proper place than any other bone. In the second and third variety especially, of varus, its greater tuberosity is carried inwards much within the internal malleolus, and also drawn up by the muscles of the calf. Of course the anterior portion of the bone is depressed, and thus a perfect articulation with the cuboid bone is prevented, as well as that between the astragalus and upper portions of the calcis which is also rendered imperfect. The heel in fact is often from this change almost effaced, and the anterior portions of the foot are changed from a horizontal to a vertical position.



The sole of the foot, shows very distinctly the change of the respective bones. It is much deeper than natural. The anterior portion larger, and the heel not as wide as usual.

The individual bones are smaller than those in a well formed foot of a person of the same age. If the foot is operated on in youth it generally attains the full size, but not so if the person is of matured age. It is not the fact that anchylosis of the tarsal and metatarsal bones is present in these cases. Dr. Mutter has examined a large number of cases especially with a view of ascertaining the fact, and he has found it to hold good in only a few instances.

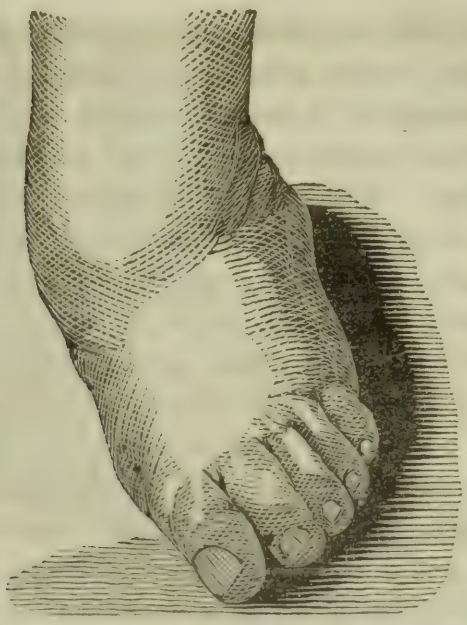
The condition of the muscles and ligaments in this form is worthy of attention. The muscles which pass from the leg to the foot are displaced. The two tibials from their contraction, resist stronger the eversions of the foot, and require division. The long flexors of the toes, and adductor of the great toe are also contracted. But the principal contraction is in the gastrocnemei, solei, and plantaris, and generally require the division of that tendon.

On the other hand, the peronei muscles are so much relaxed as to have no contractive power, and as it were, paralytic. This loss of muscular balance has been considered a proximate cause of the deformity, but it rather depends on shortening of the tendon Achillis in most cases and displacement of the bones in others. But their great deviations from a normal condition are principally in varus of the third degree.

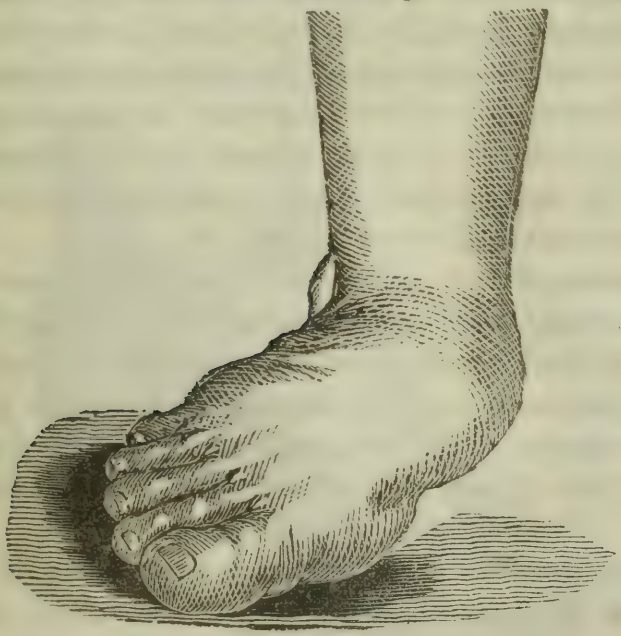
Valgus is that form of club foot which is classed by Scoutetten under the second head, or *everted.* The illustration represents its most curable form, and may be remedied easily by the aid of an appropriate apparatus and the attention of the surgeon, without resorting to any operation.

Characters: Foot rests on the *outer* edge; *external* elevated. Three varieties.

1st. Foot rests on the sole, but more on the *inner* edge and the ball of the great toe; outer edge is elevated and does not touch the earth. *Instep* flatter than natural, and a depression exists below and a little in front of the external malleolus. The internal malleolus is more prominent than usual, and the scaphoid bone forms an enlargement along the inner edge of the foot.



2d. This is an aggravated form of the first, and the foot rests almost entirely on the anterior portion of its inner edge; the heel is also drawn upwards, and a little outwards. The depression in the dorsum of the foot is deeper, and the projection formed by the internal malleolus and the scaphoid much greater than in the first. The muscles of the limb have but little power, and are in a very small degree under the control of the patient.



3d. Foot rests on inner edge entirely; is turned completely out, dorsum presenting in front. Internal malleolus very prominent;

external buried in the depression between the leg and foot. The position of the heel varies, whether it be congenital or depend on accident. If congenital it may be drawn up, but if caused by some injury, which is more usual, it is not generally changed from its natural position. This form of valgus is rare, and in fact valgus in general, is much more uncommon than varus. Of twenty-eight cases reported by Dr. Mutter, two only were valgus.

Valgus is rarely congenital, but is more usually the effect of accident after birth. What are the appearances presented on dissection of a case of valgus? The ligaments and muscles are found in an analogous condition to that in varus, with the exception that the *internal* are extended, while the *external* are contracted. Of the bones, the astragalus is more displaced than in varus, the head being separated from its articulation with the os naviculare. The calcis also turns on its short axis, looks outward, and is joined closer to the *cuboid*. The situation of the cuneiform is nearly natural, but they, with the phalanges, become more or less vertical as the deformity increases.

Pes Equinus. This is the third division of club foot. The term pes equinus, or horse foot, is considered by Scoutetten "an improper expression, which ought long since to have been abandoned," and asks—"What is there common between our foot when thus deformed, and the foot of a horse?" He therefore proposes that it shall be replaced by the term phalangian club foot, being that form which touches the ground only by the phalanges. But we deem it better to retain, at least for the present, a term introduced by the ancients, which is sufficiently expressive, and which has become familiarised by long use.

This species of club foot is, next to varus, the most frequent form. The slight forms of pes equinus do not change the natural shape of the foot, but in the worst forms, the deformity is very great; the dorsum of the foot becomes convex, the ligamentum plantare is contracted, and the patient steps on the back of the foot.

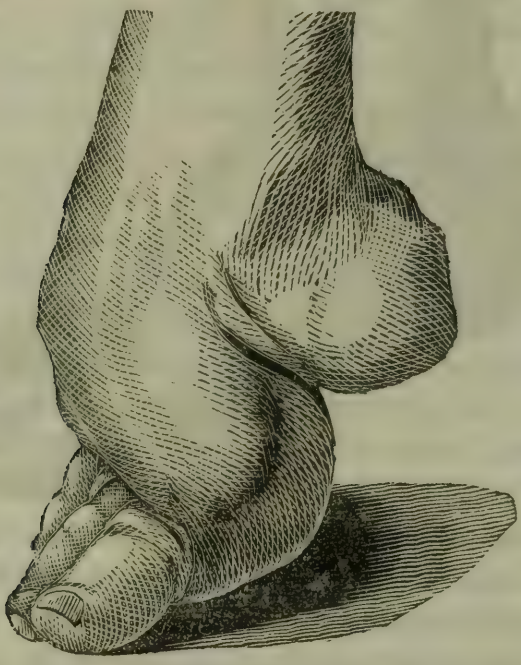
In this form of club foot, the foot rests upon the point or the phalanges. There are several varieties.

Pes Equinus—first variety. Characters: There is but little deformity of the part. The heel is drawn up a little, and cannot be brought to the earth. Its unnatural position being produced by the contraction of the muscles inserted into the os calcis.

Pes Equinus—second variety. In this form, there is a still greater retraction of the heel, and there is also a contraction of the plantar aponeurosis. The member is bent upon itself; the dorsum uneven, owing to a subluxation of the schaphoid bone. The toes receive the weight of the body, and become deformed from constant exercise. We give here two illustrations of the second variety. The first cut represents the condition of the member before much exercise had been taken.

After the individual has walked upon the foot for many years, the weight of the body constantly pressing upon it in its unnatural

position, the deformity becomes still greater; the foot assumes a more arched form, the heel is more drawn up, and the patient walks almost upon the point of the foot, as is seen in the illustration.



Pes Equinus—third variety. Characters: Heel very much retracted so as sometimes to be scarcely visible.

The foot forms a straight line with the leg, and rests upon the ends of the toes which yield whenever the patient attempts to walk, so that the weight is received on the outer or inner edge of the foot. In this form, the dorsum is more convex than natural, and the plantar aponeurosis generally contracted. In the last illustration is shown the appearance of a foot of the third variety, at birth, and until an attempt is made to rest the weight of the body on it.

But after the weight of the body has been acting upon the foot from many years use, it becomes much changed, it is doubled under, and the patient walks upon the foot forced into the unnatural position, in which we present it.

This degree of pes equinus, it will be readily perceived, by neglect and constant use may be changed into the other divisions of varus or valgus.

There is another form described by Dr. Mutter, which will come properly under the third variety of pes equinus, which is represented in the accompanying illustration. "The boy was born with a pes equinus of the third degree, of the right foot, which had been neglected when he began to walk. The toes turned directly backwards so as to bring the dorsum of the foot upon the earth. The foot was much contracted, and the plantar fascia very strong. The dorsum was very convex, and the parts that received the weight of the body were covered with a large bursa mucosa. The leg was wasted and the muscles rigid. The subject of the case was ten years old." It was successfully

treated by Dr. Mutter in the manner we shall describe in its proper place.

Pes equinus is most generally produced by accidental causes, some injury of the member producing contraction of the muscles of the back of the leg. What are the appearances presented on dissection? The bones of the foot are in general found in their normal position, with the exception of a slight "rolling off of the scaphoid from the head of the astragalus. The muscles of the calf are wasted away, but still are firm and rigid. Those on the front of the leg, particularly the tibialis anticus, are relaxed and lengthened; the ligaments on the front of the foot are extended, while those of the sole are tense and shortened.

These are the characters of the principal divisions of club foot, so laid down that we hope they will be easily comprehended.

Having now considered the different forms of club foot, let us devote the remainder of the article to the important subject of treatment. What age is the best adapted to successful effort. It is urged that the earlier the treatment is commenced the better, as the parts are then flexible and easisly moulded into shape. But there are several valid objections to commencing at a very early period of infancy—the integuments are then very liable to suffer excoriation and ulceration from the application of the best adapted apparatus; the legs of a young child are also so formed that it is very difficult to adapt any apparatus that will not slip down.

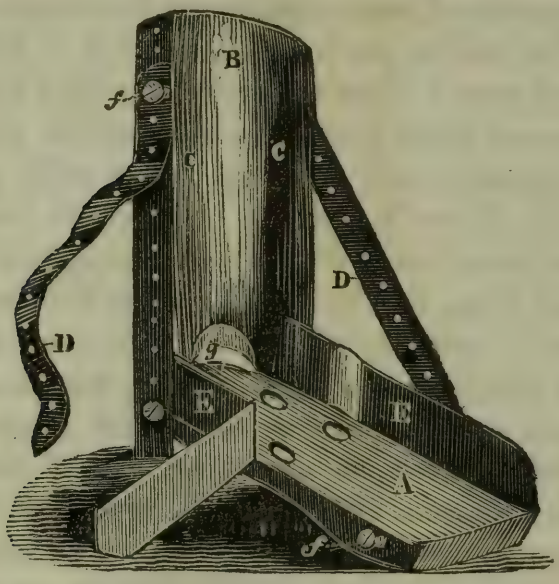
From the susceptible condition of their nervous system, the irritation of treatment might bring on convulsions or fever. For these reasons it is considered most advisable not to commence treatment earlier than the fifth or sixth month, and not to defer it longer than the second year if it can be avoided, for after this period the difficulties become much increased—the muscles and ligaments offer greater resistance, and the joints of the ankle and foot become rigid. Dr. Mutter's experience is, that the most favorable periods for treatment is between the sixth and eighteenth month; if allowed to pass those, then the next best time is between two and eight years, every year after which the case becomes more difficult to treat. But still, while we have cases on record of successful treatment as old as fifty years, we should not abandon any case without making an effort, merely on account of advanced age. These advanced cases are only, however, to be treated by the aid of operative procedure which we shall refer to presently.

As to the variety of the deformity. Varus in the first and second degrees is easily managed, but the third is difficult and requires a long time. Valgus, if congenital, is not difficult to relieve, but if from mechanical injury, it is the most unfavorable variety. Pes equinus, where there is simply an elevation of the heel, may be easily cured, but if complicated with lateral inclination of the toes, it will be more difficult.

The general indications of treatment are the following: The first is to bring the shortened tendons to a proper length. The next is to retain the foot in its position for a sufficient time to complete the cure. One important thing to be attended to under this head, is to keep the heel firmly fixed during the whole treatment. The next thing is the restoration of tone to the muscles and ligaments of the foot, and the adaptation of a shoe or boot, by which the foot may be *permanently* retained in its proper position.

Varus. This, if attended to early and of the milder form, will readily yield to judicious pressure; it is rarely necessary to resort to any operation. Many kinds of apparatus have been suggested for the purpose of remedying this deformity, but our attention must be confined, on the present occasion, to that of Dr. Mutter. He uses "a simple gaiter, to surround the ankle, to which is attached along its inferior margin four tapes, intended to pass

through holes or mortices in the foot board of the machine." The machine in represented in the following cut.

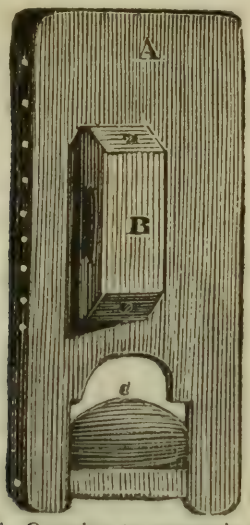


A, Foot board, with four holes for tapes of gaiters. B, Leg board, extended as high as knee joint. C C, Pads to prevent pressure on the muscles of the leg. D D, Straps by which the angle of junction between the leg and foot boards may be varied at pleasure. E E, Iron splints, height proportionate to the size of foot. External hollowed out to receive bursa mucoca, always present and painful when pressed. Inner splint divided and furnished with a hinge to make it more ready of adaptation to any case. *ff*, Two pegs or screws for the attachment of straps. *g*, Opening in the leg splint to ascertain the position of the heel.

The application of the machine is as follows: The gaiter having been previously applied, the foot is placed on the foot board and brought to its natural position, the heel being adjusted accurately, touching, if possible, the foot board. The gaiter tapes are now tied underneath the board. The whole apparatus is then enveloped and firmly secured by a narrow roller beginning at the toe.

The apparatus is directed to be removed daily, for the purpose of bathing the foot in cold spirits and water and applying friction to stretch the shortened tendon. With this exception, the instrument is to be worn night and day as long as may be necessary.

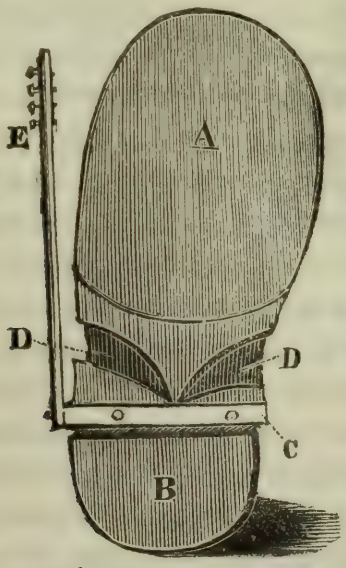
If both feet are affected, they still continue to *look inwards* after the application of the splints. To obviate this difficulty Dr. Mutter uses a cross bar, which is made to fit by its extremities into a morticed cleat with which each leg piece is furnished, and is attached to the back of the splint, and about its middle.



A, Splint. B, Cleat. C, Opening to ascertain the position of the heel.

This apparatus has been successfully used for the cure of congenital varus, and even in those of more advanced age a modification of it is also used in valgus. After the foot has been brought to a proper position it may be prevented returning to its original shape, by a high quartered shoe made stiff on the inside.

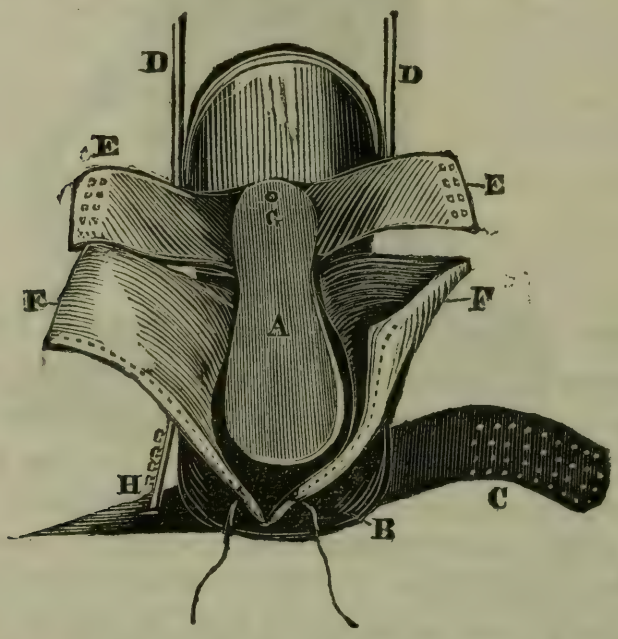
After the child begins to walk, a shoe is substituted for the splints. In the construction of the shoe, Dr. Mutter suggests one for which he claims no merit of invention, but it is constructed on the principles of Scarpa and Delpech combined. We give two representations of the shoe. First of the sole.



A, Anterior portion of sole, or steel or iron covered with leather. B, Heel of same. C, Iron plate, terminates in the leg irons. D, tongue of the sole plate—this is rivetted to heel plate but admits of free motion between it and the sole. E, Lateral springs of Scarpa furnished with buttons for straps which evert the toes.

The shoe is formed of a steel or iron sole and heel plates because the leather is not of sufficient firmness to resist the inclination of the foot, will become warped, and in a short time not only useless but hurtful.

We present the front or upper portion of this shoe.



A, Steel spring, width of sole of foot, rivetted to heel plate so loosely that its lateral inclination may be varied at pleasure. It should be a little longer than the foot, but not long enough to touch the leathers of the shoe. B, Toe of shoe. C, Broad leather *everting* strap, stiched strongly to the sole—passes over the foot and fastened to springs on outside of shoe. D D, Iron leg splints. E E, Straps three inches wide to lace across instep to *fix* the *heel*. F F, Upper leathers, divided down to the toe to allow the foot to be properly adjusted upon the spring. G, Rivet fastening the spring to the heel. H, Spring on the outside of the foot.

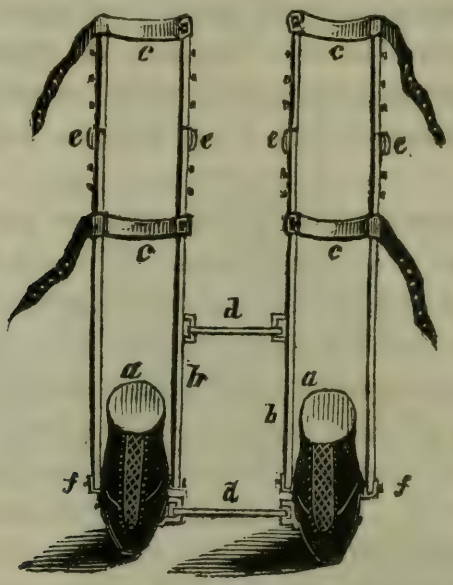
To apply this apparatus the foot should be covered with a stocking and placed upon the spring of the shoe. The leg splints first to be fastened, and then the heel forced back in its place and retained by straps. To prevent excoriation, cotton wadding should be placed between the lacings of the straps and the instep. The heel being fixed, invert the sole of the shoe and the spring until they correspond with the sole of the foot—lace the leathers in order that the foot may be kept in contact with the spring; then pass the everting strap across the foot and fasten it. This should be worn night and day, and never removed except for the purpose of bathing the foot, and using friction. The patient is allowed to exercise freely. This treatment will generally be sufficient in

young persons, but if the person is advanced it is better to divide the tendon of the tibialis anticus, and possibly of the posticus. The cure will be much more certain and speedy if the tendons are divided. After the division apply the apparatus, and after the foot has gained its proper position direct the patient to wear a shoe stiffened on the inner side, as long as may be necessary.

In varus of second degree a cure may be produced by the apparatus alone, but it will be tedious. In these cases the division of the tendo Achillis is recommended as much facilitating the cure, enabling us to bring down the heel to its proper position in a week or ten days, which would require months to effect without it. If the case is older than six years of age Dr. Mutter says, "there cannot be a question relative to the nature of the treatment. Do not, I beg of you, waste time here in the employment of apparatus alone, but divide the tendon Achillis *at once.* This done, make use of the measures just recommended for the same defect in younger persons; and if perchance, you should be revisited, as you will occasionally be, by the tibial tendons and fascia plantaris, divide them also."

Varus of third degree is much more difficult to treat. This form, if relieved at all by apparatus alone, is only after much suffering and a length of time. Although the possibility of cure by this means is not denied, yet that is not the question—it is rather what is the most *certain, speedy,* and *least painful* mode of treatment? These indications are best fulfilled by the division of the tendons. The subsequent treatment is similar to that laid down for varus of the second degree. It sometimes happens, after the feet have been brought to a natural position, that being too weak to support the weight of the body, there is constantly a tendency in the feet to turn inwards. For these cases Dr. Mutter recommends a shoe somewhat different from those generally used in similar cases. The sole is perfectly straight with a steel plate stitched in between the leathers. The *outer* margin thickened for the fourth of an inch by a strap of leather, to prevent the rolling of the foot. The leg irons, unless the knee joints are weak, need not be carried higher up than the bulge of the calf. The inward inclination of the legs and feet is counteracted by the transverse bars between the leg irons and the toes of the shoes. These are

so attached as to allow only horizontal motion, and to force the patient to move his feet in parallel lines.



a a, Shoes lacing from toe up. *b b*, Leg irons extending to middle of thigh. *c c c c*, Straps and buckles for attaching irons to the limbs. *d d*, Horizontal bars. *e e e e*, Joints opposite the knees. *f f*, Joints opposite the ankles.

This apparatus when first applied is very inconvenient, but in a few days it is used with but little complaint. How long should it be worn? In adults who can attend to it, a few weeks will only be required, but in children it will be necessary to use it for one or two months. In cases of persons in advanced life it is necessary to divide not only the tendon Achillis, but often the plantar facia, the tendons of the tibials, and often of several of the toes. But let it be remembered that there is a danger of exciting too much irritation if all these are divided at once; it is more judicious to let some interval of time elapse between each operation. As soon as the soles of the feet can be brought towards the earth it will be advisable for the patient to make efforts to walk; exercise soon brings the limb into a natural condition.

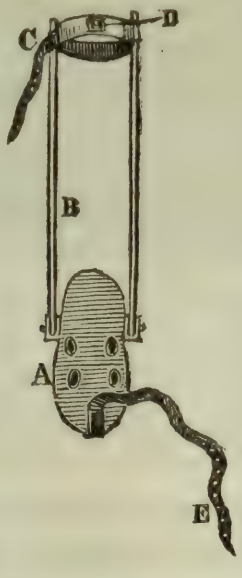
There are several difficulties which may attend these cases. The excoriation produced by the pressure of the apparatus, irritation of the synovial membranes, œdema of the limb, from the action of the bandages or straps—pains in the joints of the foot, and cramps in the calf of the leg. How shall we treat these unpleasant symptoms? To prevent excoriation, pad the instrument and remove daily—reduce irritation of synovial membranes by

local deplution and cold applications—the œdema by stimulating frictions—for the pain in the joints, rest, and for the cramps, opiates.

To improve the condition of the legs, and promote the development of the muscles, use frictions, cold bathing and exercise.

Valgus is treated on the same general principles. In the first degree, Dupuytren's apparatus for fractured fibula may be applied, or one similar to that advised in varus, only placing the hinge splint on the outside of the foot board. In valgus of the second and third degrees, it is often necessary to divide the resisting tendons.

Pes equinus. The indication of treatment is very plain; all that is necessary in most cases is to elongate the tendon. The first variety may be cured in a short time, by a properly constructed apparatus, such as that used by Dr. Mutter, which consists of a foot board, with holes for the attachment of the strings of a gaiter, and leg irons which extend to the knee.

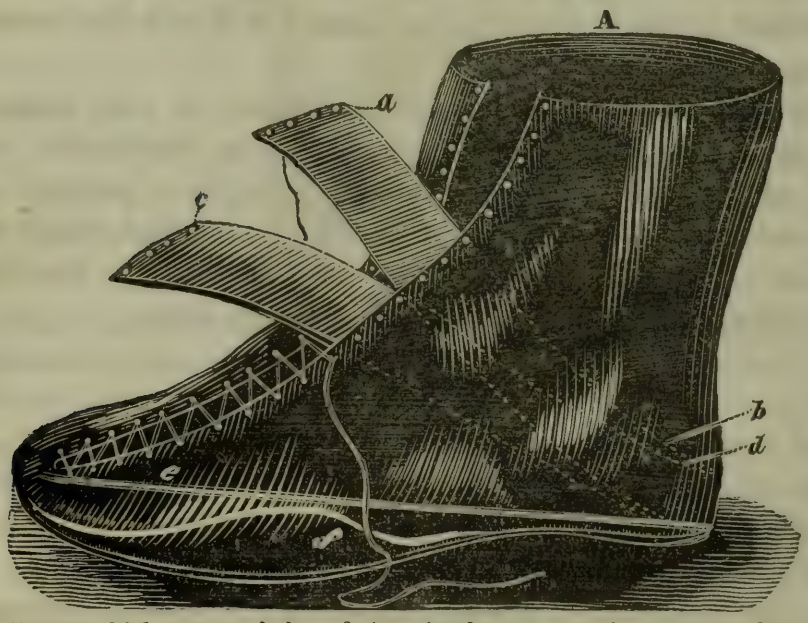


A, Foot attached to leg irons by a wire joint which will admit of varying the angle of inclination. B, Leg irons passing to the knee. C, Strap to attach leg irons to the limb. D, Buckle for toe strap. E, Toe strap, by which toe is elevated.

Mode of application—Apply the gaiter to the ankle, fasten the foot securely to the board, attach the leg irons, and pass the toe strap through the buckle. Every day or two elevate the toe by taking up a hole in the strap; of course the heel will be brought down, after which use a straight shoe furnished with instep straps

to be worn day and night, until all tendency to retraction of the tendon Achillis has been overcome.

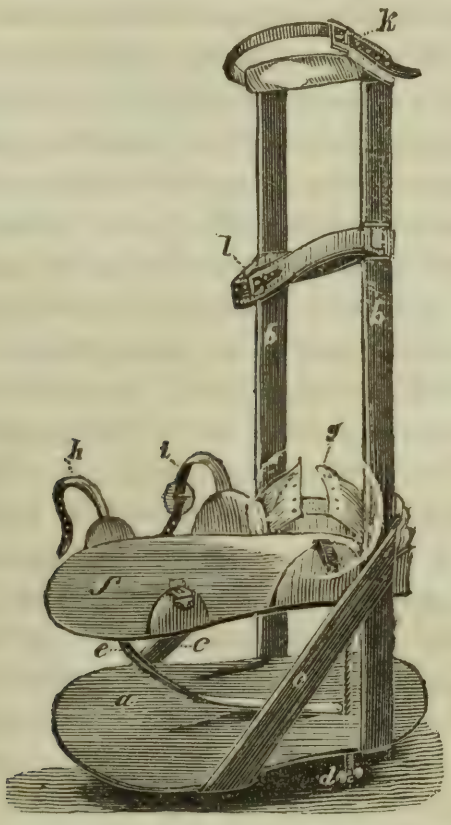
This apparatus will enable us to treat successfully milder forms of pes equinus, in very young subjects, but in those more advanced it will be a judicious course, and expedite greatly the cure, if the tendon is divided at once. After the division, use the simple stretcher described above, and when the parts are sufficiently united give the patient a shoe similar to this, which is a modification of Scarpa's.



A, Common high quartered shoe, fitting closely to the ankle and lacing from toe up. *a b*, Left instep strap. *c d*, Right instep strap. These straps, by lacing across the instep, are intended to keep the heel in its place. *e*, Steel spring, width of foot, nearly as long as shoe, rivetted to heel and passed forward at an angle of 35°. *f*, Supporting spring, optional with surgeon, to be introduced in certain obstinate cases. The springs keep up a continued action of the toes and counteract the tendency to retraction of the tendon Achillis.

In the second variety of pes equinus the indication of treatment is the same. But in advanced cases it is sometimes necessary to divide also the fascia plantaris and the tendons of the toes, from their being so much distorted as to prevent the employment of a suitable shoe until they are reduced to a more natural position. The simple apparatus recommended for the first degree will not possess sufficient force, and the great deformity of the foot demands a more complicated apparatus than the gaiter, to fix it on the foot board. It is also important to have the force applied *regularly* and *gradually*, increased or diminished at pleasure

without disturbing the whole dressing. Dr. Mutter has invented an apparatus which he believes will be found to fulful these important indications,



a, Iron plate, the eighth of an inch thick—a little longer than foot. *b b*, Leg irons, extending to knee. *c c*, Strips of iron to strengthen the attachment between leg irons and lower plate. *d*, Screw to separate the plates, and thus depress the heel. *e*, Strong steel spring to act on toe, while heel is depressed by the screw. *f*, Iron plate, furnished with heel and side pieces to secure the foot in proper position. *g*, Instep straps—very important, as they *fix the heel*. *h*, Strap to lace across the toes. *i*, Strap to keep the sole in contact with the plate. *k*, Strap to attach the leg irons.

Mode of application—Adjust the gaiter to the ankle, fasten the foot to the upper plate and the leg irons. The foot being firmly secured, commence depressing the heel by turning the screw until the patient complains of uneasiness, then fix it at that point. Turn the screw a little from day to day, until the angle between the leg and foot becomes nearly a right one, and the patient will soon get good use of the limb.

The apparatus should only be removed to bathe the foot and prevent excoriation. The cure may be completed by the shoe, with a spring in the sole, represented above.

In pes equinus of the third degree the same indications of treatment must be carried out.

Our notice of the works of Mutter and Scoutetten, and of the subject itself, would be very imperfect should we conclude without devoting special attention to the subject of dividing the tendon, which has been so repeatedly advised in the treatment of the various forms of club foot. This, from its being considered as one of the greatest trophies of surgical science and skill produced by the present century, might well justify a much longer notice than our limits will permit—a brief outline of its history and the operative details, is all that is allowed us—less than that would be unjust to the science and unfair to our readers.

By one writer on the subject it is contended that the initial idea of curing the deformities of the feet by the division of the tendons, was known to Hippocrates, and bases his opinion on the sentence contained in the sixth section of his book, De Articulis, where he has laid down the rules for treatment by bandages:—"Atque quidem est curatio, et neque sectione, neque ustione, neque alia varietate quisquam opus habes." It is true, after the operation had been performed, a diligent and astute searcher into the old authors of medicine might find in this sentence some claim to the originality of the operation, but it is too vague and isolated to substantiate the claim of the wise Father of Medicine to its suggestion. We must therefore pass by claims founded on so weak a basis, and proceed further down the stream of time for the origin of this valuable discovery.

The preparation for it was made by the establishment of several important facts. Molinelli reported in the History of the Academy of Bologna, four cases of transverse wounds of the tendon which healed kindly. With a view of confirming these cases, Hoin, a surgeon of Digon, instituted a series of experiments. He divided the tendo Achillis of animals and the wounds healed perfectly, although the animals were left entirely to themselves. It is also asserted, and is now quoted as an instructive lesson to medical men, that the practice of dividing the tendons of deformed members had long been known to veterinary surgeons. Scoutetten preserves the reference from a publication of M. M. Miquel and Debeaux—

"It is long since the practice of dividing the flexor tendons of the feet, in cases of vicious inclination of the members, was

adopted, although no one has as yet been at the trouble of prescribing rules for performing the operation methodically. Probably timidity of some, and want of success in others, have heretofore prevented veterinarians from making known their operative process. We know that some practitioners succeeded by this means, and long before ourselves, in restoring limbs which had altogether lost their perpendicularity. Our object in communicating the result of our labors is to simplify and render more familiar, an operation which may prove as advantageous to *human surgery* as to that of animals."

But the first authentic suggestion of division of the tendo Achillis in man, appears to have been made by Thilenius, of Frankfort, in 1784, but not being a surgeon himself, he had the operation performed by one of the name of Lorenz. The next attempt was made by Michaelis, in 1811, but he did not divide the whole tendon—and in 1812, by Sartorius. The next who performed it was Delpech, in 1818. When this distinguished surgeon reported the operation, it was unfavorably received. "The editor of a journal of the day speaking of it, is astonished that the author had seriously *proposed such an operation*. Other editors were of opinion it should never be performed, but they discussed the point scientifically and in a becoming manner."

We see here a most instructive lesson as to the paralyzing effect of the theory which then prevailed, and even in our day exerts great influence, of the dangerous nature of wounds of tendons, and it is humiliating to think how many centuries this error exercised its influence, until its correction by experiment and observation.

But even Delpech himself, although undoubtedly the reviver of the operation in the present day, has most unaccountably permitted the laurel of fame to slip from his grasp. Whether the serious difficulties which attended the operation in his case—the inflammation—sloughing of the tendon, &c. deterred him from a repetition we know not, but certain it is, that he was so little aware of its real value that he never performed it again; and in a publication on the subject of distorted feet, did not recommend it, or report the case on which he had operated.* It cannot therefore be denied, however much the self-love of the countrymen of Delpech may prompt them to glorify French surgery, by claiming

* This fact is stated by Dr. Detmold, whose creditable efforts in this department of surgery will receive ample notice in the Report of Surgery for 1839—40.

this as one of its trophies, yet an impartial historian cannot award to this surgeon the merit either of having originated this operation or of having introduced it into general practice. Let us pass on and see who is really deserving of credit, for having given the operation of dividing the tendons for club foot that universal currency and importance that it now deservedly receives from the profession. To Dr. Louis Stromeyer, surgeon to the king of Hanover, is the merit justly due of having given the operation its proper value. His first operation was performed February 28th, 1831—the second, June 12th, 1832. His memoir was published in Rust's Magazine for 1833. In 1834, Stromeyer wrote to the editor of the *Archives Generale*, communicating the result of four new cases, three of which were successful.

The operations of Dr. Stromeyer, were repeated by surgeons in different parts of Europe, and it is now an established operation.

The history of the operation in the United States will not occupy much time. The credit of having performed it for the first time in America, has been awarded by Stromeyer to Dr. Detmold, of New York, formerly a surgeon of the royal Hanoverian army; but Dr. D. yields the priority in this country to Dr. Dickson, of North Carolina, who operated in 1835, and Prof. N. R. Smith, of Baltimore, who operated 1836. But we are happy to do justice to American surgery, and put on record the fact, that the operation of dividing a tendon for club foot was performed in Richmond, Va. as early as 1814, by Dr. Philip Thornton. Dr. Thornton had received his education as resident surgeon of that noble institution, the Pennsylvania Hospital, confessedly the best school for surgery in this country. The evidences proving the fact of the operation, are derived from an authentic record.*

* Extract from the Day Book of Dr. Philip Thornton.

INTERESTING CASE.

Mr. Walker, (carpenter,) Rockett's, Richmond.

1814.

July 19. To operation on child, for club foot, by dividing the tendon of the tibialis anticus. The foot immediately returned to its natural position.

July 25. To operation on the other, which did not return to its natural position with the same facility, I suppose on account of the difference of age, although but a few days.

August 1. To visit for cholera infantum—very ill, and life despaired of. Died in a few days.

The next in order, after Prof. Smith, was Dr. Detmold—his first operation was in September, 1837. Since which he has divided the tendo Achillis in one hundred and sixty-three cases. The next was performed by Dr. George W. Norris, one of the surgeons of the Pennsylvania Hospital. The next in order was Dr. Mutter,* who reports in his work twenty-eight cases operated on. Since that time the operation has been very frequently performed by surgeons in different parts of this country.

With this rapid sketch of the history of the operation in Europe and this country, we pass on to devote a notice to the details of the operation which will conclude this article.

Scoutetten is very valuable for the guides which he lays down, and says—

"As to the division of the tendo Achillis, and before proceeding farther, it will be well to recur to some of the most important surgical facts. It will be recollected that the posterior tibial artery is placed at the inner edge of the tendon, to which it is united and by which it is sometimes even covered superiorly; it becomes detached about the middle of the tendon and is entirely separated from it at the inferior portion, after which it runs along the centre of the groove formed between the tibia and os calcis. The artery is accompanied in all its course by large veins, and by the posterior tibial nerve."

It should also be borne in mind that the natural arrangement of the parts is changed in club foot, especially in advanced cases. The veins are distended, and with the artery form flexuosities which cause them to occupy more space than in the natural condition.

"The tendon itself merits a moment's attention; from being very broad at its superior part, it gradually decreases in size, until it forms a large and nearly round cord, whilst at the distance of twelve or fifteen lines from the heel it again enlarges, for the purpose of being inserted into the os calcis—to obtain which insertion, it has to pass through a broad mucous bursa."

From the various considerations of the risk of wounding the artery, the veins, or the nerves, of which there is the more danger if the section is made too high up, and on the contrary, if made too low, the opening of the bursa mucosa which, from the

* It is due to this talented and enterprising surgeon, that we should state that he has operated in all on one hundred and twenty-one cases of club foot, four cases of torticollis, three of all the hamstring tendons, and two cases of biceps tendon in the fore arm.

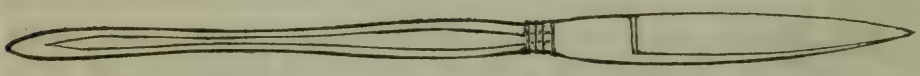
constant escape of synovial fluid into the wound, would hinder the formation and hardening of the plastic lymph, necessary to reunite the divided tendon. Scoutetten therefore, lays down the following rules, "which are precise, and must not be departed from in any case, where the object is to perform with safety the section of the tendon."

"1st. The point for dividing the tendon in adults, is at the distance of fifteen lines above the os calcis. In infants it must be varied according to the child's age—in the youngest subjects the point ought never to be less than five lines from the heel. In case these directions should be forgotten, it will be well to recollect that a line drawn transversely, so as to divide the malleolus externus, will give the exact height at which the section should be made.

"2d. The tendon should invariably be divided from its inner edge, as by so doing, the instrument will be interposed between it and the vessels and nerves.

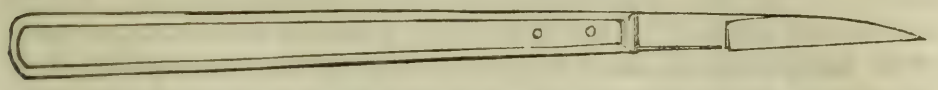
"3d. The incision should be small, and ought never to traverse the skin through and through. This precaution is necessary to prevent suppuration and exfolation of the tendon."

The kind of instrument for dividing the tendon has excited some inquiry. Delpech used two instruments—a bistoury to divide the skin, and passing behind the tendon he divided it by a small convex knife. Stromeyer a pointed narrow bistoury with a convex edge. Scoutetten objects to using more than one instrument, as unnecessarily complicating the operation, and recommends an instrument which he calls a *Tenotome*, of which we present a view.



It consists of a narrow blade inserted into a strong handle, having the point convex on both sides—the curvature of the cutting edge commencing near the point. This form is thought to avoid the chafing of the skin at its internal edge, and the heel being thick, in order that it may be set firmly against the tendon, which in some individuals offers great resistance to the action of the instrument. The edge of the tenotome looks towards the broadest part of the handle, and by affording a larger surface for the fingers to rest on, insures the instrument being held more firmly. We pre-

sent here a representation of a knife made after that used by Dr. Mutter.



We believe it will be found a better instrument than that of Scoutetten.

The plan of operation recommended by Scoutetten is as follows: The foot being flexed for the purpose of making the tendon prominent, the tenotome is applied with its point against the tendon, while the skin is stretched by pulling it a little inwards.

"To execute the *first* part of the operation, I now thrust my instrument through the integuments, keeping it near as possible to the tendon, and turn it from behind forwards, and from within outwards. When, by the depth the blade has penetrated, and sometimes by a slight external protrusion of the skin, I find that my instrument has passed beyond the tendon, I prepare to execute the *second part* of the operation. The handle of the tenotome being depressed, the edge of the blade is consequently firmly applied against the parts to be divided; I now move the instrument very slowly backwards and forwards—a peculiar noise soon announces the separation of the tendinous fibres, and suddenly, a quick, dull, cracking sound proclaims the entire divison of the tendon. I immediately cease to press on the instrument, and withdraw it slowly from the wound, at the same time carefully arranging the integuments. A depression, varying in extent according to the degree of contraction of the muscular fibres, occupies the place where the tendon previously was. The operation thus performed, is attended with but little pain, and I have frequently seen it borne by children without uttering a single cry."

After the instrument is withdrawn, a very small quantity of blood escapes. It is recommended to press out carefully all the blood which might become extravasated and cause irritation and suppuration—a pledget of lint spread with cerate is applied, over which a compress and bandage is placed. The wound is generally found healed in five or six days, when is the time for reducing the foot, which will be frequently found to have commenced under the action of the extensor muscles.

Dr. Mutter's plan of operation is a modification of that recommended by an English surgeon, Whipple, except that Dr. M. divides the tendon *directly across* instead of *obliquely*. After the previous arrangements,

"He then passes from within outwards, a narrow convex edged

bistoury, about one or two inches above the os calcis, and between the *integument* and *tendon*, until its point gets beyond the outer margin of the latter; the foot is then suddenly *flexed*, which brings the tendon against the knife previously turned upon its edge, and with very little pressure upon the instrument, the operation is completed, which is generally indicated by the *snap* and by a sudden *jerk*. As soon as this is perceived, and not until then, the knife is withdrawn in the same way in which it has been introduced. The little wound is then closed by adhesive plaster, the stretching apparatus applied, and the subsequent treatment conducted as I have already indicated. Whenever it seems necessary to divide other tendons, the operation is to be performed upon a similar plan; make but *one* puncture, and divide directly across, and then begin to extend the parts *at once*."

As to the dangers of the operation, although Scoutetten speaks of the risk of dividing the tibial artery—venous hæmorrhage, wounds of nerves, &c. yet we cannot but agree with Dr. Mutter, "that there are no dangers" if the operation is performed with that care which should regulate every surgical operation, and experience of the most enlarged kind bears out the assertion of the little risk attendant on this operation, for although it has been performed in Europe and this country we presume at least a thousand times, the records of surgery afford but one case where there was any unpleasant consequences attended the operation, and that was the first and only case operated on by Delpech, where the consequences that attended were probably owing to the mode of operation—making the external incision too large, and some peculiarity in the constitution of the patient—but even in this case, although the cure was retarded, yet it was eventually successful. But since the improved mode of operating, not a single case has been recorded where any bad consequences have attended the operation. An impression has prevailed that the divided tendon after its reunion, would not be as strong as before, but as yet experience has not met with any objection on this head. There is no instance that we have observed, where there has been a giving way of the plastic substance that forms the bond of union between the ends of the divided tendon. From the facts the inference is most forcible, that any member of the profession is competent to perform the operation, and should not avoid it if cases come in his way. As it is the aim of the conductors of this Journal to make it eminently *practical*, we have taken particular pains in the present article, to give so plain and simple an abstract of the knowledge contained

in these two valuable works of Mutter and Scoutetten, accompanied with appropriate illustrations, that our readers may be prepared to treat all cases which may occur in their practice, wherever they may be located in our widely extended country.

In conclusion, we must do but justice to Dr. Mutter in expressing the opinion, that his operations and work on the subject of club foot, and his station as a popular teacher of surgery in the Philadelphia Medical Institute, have had as much influence in giving the new treatment its proper value, with the profession in the United States, as those of any other individual. We would but urge him to give the result of his more enlarged experience, and make a complete manual of the present state of knowledge on the surgery of deformities. To Dr. Campbell Stewart we are also under obligations, for giving us the valuable work of Scoutetten in an English dress. May his professional career, thus so auspiciously commenced, be crowned with many years of usefulness and honor.

BIBLIOGRAPHICAL NOTICES.

Elements of Pathological Anatomy, illustrated by numerous Engravings. "In morbis, sive acutis, sive chronicis, riget occultum, per humanas speculationes fere incomprehensible."—Baglivi. By SAMUEL D. GROSS, M.D., late Professor of General Anatomy, Physiology, and Pathological Anatomy in the Medical Department of the Cincinnati College. 2 vols. 8vo. pp. 1028. Boston: Marsh, Capen, Lyon & Webb, and James B. Dow, 1839—For sale at the office of the "School Library," No. 126 Fulton street, New York.

WE acknowledge with pleasure the receipt of this valuable and neatly printed work. We call the especial attention of our readers to it, as a work of no ordinary merit, and destined to advance the reputation of the medical literature of our country, both at home and abroad. It will doubtless enhance greatly the credit of its talented author, already very favorably known. We cannot do justice to him or his production, by a mere passing bibliographical notice. We invite, however, the attention of the profession to it thus pointedly, without endorsing all the opinions advanced by Dr. G. hoping that some member of it will furnish us for publication, in an ensuing number of the Journal, a review worthy of the work. OMEGA.

Consumption Curable. By FRANCIS HOPKINS RAMADGE, M.D., Fellow of the Royal College of Physicians, Senior Physician to the Infirmary for Asthma, Consumption, and other diseases of the chest, &c. London. First American from the third London edition. New York: Published by J. M. Howe, 102 Grand street, 1839. 1 vol. 8vo. pp. 160.

THE above work has been put into our hands by a medical friend, for introduction to the readers of the Journal. It treats of the "manner in which nature, as well as remedial art, operates in effecting a healing process in cases of consumption—explained and illustrated by numerous remarkable and interesting cases: to which is added a mode of treatment by which the development of tubercles may be prevented in persons liable thereto, from hereditary predisposition, or a bad state of the system, induced by various causes."

We have not as yet had sufficient leisure to examine carefully and thoroughly the work of Dr. R.—now presented for the first time to the American public—so as to pass a full and explicit opinion upon its merits. From the cursory examination we have given it, we coincide in the opinion expressed by our friend to whom we are indebted

for the copy before us, that it is an "interesting work." The following extracts will afford our readers an idea of one of the chief remedial means upon which Dr. R. relies for the treatment of consumption, as well as the rationale of its operation in combatting successfully this formidable disease.

"An extraordinary but most undeserved reputation is bestowed on various substances, mechanically received into the lungs in a state of vapor. Among these I may mention tar, iodine, chlorine, hemlock, turpentine, and many other articles of a stimulating or sedative nature. I attach little or no importance to any of them. If benefit is derived it is, in almost every instance, in consequence of some such effects as the following: Pulmonary expansion, to a degree sufficient to exert an influence in bringing into contact the surfaces of those early cavities, which are almost invariably formed in the summit of the lungs; pulmonary catarrh, or its common consequence, a vesicular emphysema, in both of which the lungs acquire an unusual magnitude: in the latter more especially."

"In order to promote expansion of the ærial tissue of the lungs, it is my usual practice, in the absence of catarrh, and when congestion in the chest and the symptoms of hectic fever have been diminished by small general bleedings, repeated at proper intervals, or by the application of leeches over the second and third ribs anteriorly, to advise inhalation as soon as possible. There are few cases of incipient consumption but what will be rapidly improved by this treatment, steadily pursued. The disease being thus checked, the same changes will follow which are attendant upon catarrh. The nodules of unripe tubercles will become innoxious in consequence of being surrounded by black secretion, or what has been called black pulmonary matter; and small cavities, already formed, will have their surfaces soon brought into contact, so as to heal by what surgeons term the first intention."

"Inhaling, performed two or three times daily, for half an hour each time, will in the space of a few weeks work a wonderful change on the chest; * * * * * * It is in fact incredible to one who has never been at the pains to measure the chest, or examine its shape, what an enlargement it acquires by the simple action of breathing for the time above stated, backward and forward, through a narrow tube of a few feet in length."

We must close here, our imperfect notice of Dr. R's book. We do it the more readily, because the medical gentleman who has introduced it to our acquaintance has assured us that there are in his possession a number of interesting cases, in this country, corroborative of the benefit attendant upon the treatment pursued by Dr. R. which he purposes to communicate through a succeeding number of this Journal.

OMEGA.

Human Physiology, for the use of Elementary Schools. By CHARLES A. LEE, M.D., late Professor of Materia Medica and Medical Jurisprudence in the University of the city of New York. Published by the American Common School Union.

THIS elementary treatise, which is remarkable for its simplicity and perspicuity, is eminently adapted to the use of schools. The knowledge of physiology is useful to every class of society, and its diffusion among the people is the only means of protecting them against the imposition of pretenders. The science of human structure is one of the noblest which can engage the attention of a human being—and it is matter of astonishment, that while the sciences of geology, mineralogy, and chemistry have long since been embraced in the schedule of academical study, human physiology, the most important and most interesting, has been overlooked entirely.

New York has the honor of taking the lead in this great movement. Let Maryland

seize the next post, that of being the first to follow. The attention of colleges and schools is earnestly solicited to this subject. The work is illustrated by numerous plates and speaks for itself. It may be had of Cushing & Sons, Market st.

W. N. B.

Address of Dr. Hook, to the Graduating Class of the Medical College of Georgia. Published by request of the Faculty.

This is a most excellent address, and being given at a time when the feelings were softened by the occasion, could not fail to have produced a good impression on the gentlemen for whose benefit it was delivered. We have only room for the following extracts, which are well worthy the attention of the profession.

"What course of conduct ought to characterize those to whom belongs the divinely honored name of physician? What character harmonizes with the exalted science of medicine? The concentrated light emanating from the preceeding views, renders the answer to these interrogatories perfectly plain.

"The bare idea of immorality and licentiousness, indolence and negligence, degrading associations, frivolity, pride, inhumanity and falsehood in a physician, shocks all sense of propriety, and offends the good taste of every man. Nothing harmonizes with his avocation but diligence, temperance, benevolence—in a word, every moral virtue These should constantly adorn his life, and constitute the only elements of his character. Any thing short of excellence is short of the claims of our high philosophy; therefore, gentlemen, while you are exerting all the energies of your minds to perfect the healing art, you should in like manner, exert every faculty of your souls to perfect your own character.

"It is however to be borne in mind, that moral excellence is not, any more than medical skill, the fruit of wavering resolution and fitful effort. To this end there must be a fixed purpose, an unalterable determination of mind, accompanied by never failing and untiring exertion—difficulties must only stimulate to greater courage, and occasional failures, to renewed activity. Practice in this case, as in the other, will make perfect, if it is only directed supremely, to whatever things are true, venerable, just, pure, benevolent, and of good fame, and is connected with an humble and confiding trust in Him, who most certainly blesses all that are diligently aiming at every good work."

We give another extract:

"In relation to your conduct to professional brethren, I will offer two remarks.

"First. Physicians, like all other men, are exposed to misfortunes, and it may be that some of you will have to experience them.

"It is important therefore, to cultivate those qualities of heart and mind which will enable you to act well under such circumstances, whether as sufferers, or as the witnesses of the sufferings of others. In the one case, let there be that perfect self-possession, which will give patience, fortitude and resignation their perfect work; and in the other, that affectionate sympathy, and active benevolence which consoles and gladdens the hearts of the afflicted. In such conduct, gentlemen, be assured true glory consists. But further, to make provision for reverses, which cannot be foreseen nor prevented, let me urge you individually to resolve, that your afflicted or unfortunate brethren shall always find in you, true and faithful friends to the utmost of your abilities. The boundless philanthropy of our profession, requires the extension of charity to all, even the worthless; but let this be on the principle of common humanity, and never on that of the sacred pledge here suggested for your adoption.

"And secondly. The reputation of medical men is more or less affected, by the

estimation in which the healing art is generally held. Every exhibition of skill, every conspicuous instance of success reflects honor upon the whole profession; for it is to their common science that the glory belongs. How absurd then professional jealousy! How suicidal every attempt to depreciate the merit of our brethren? And withal, what ingratitude it displays! For it is no more nor less than an attempt to injure and prostrate those, to whose industry and talent, we owe the respectability of the profession. Let me urge you to avoid this unwise, unjust and illiberal course of proceeding, and to adopt one of a diametrically opposite character. Rejoice in the success of others, give them all just praise for the skillful application of the principles of the science, and in short, so long as they continue honorable and upright, treat them, in word and deed, as brethren, in whose professional honors and misfortunes, you are permitted, and obliged to share."

An Essay on the subject of Yellow Fever, intended to prove its transmissibility. By B. B. Strobel, M.D., late Physician to the Marine Hospital.

There has been no care expended on the mechanical execution of this work. At the 40th page we find an absence of the regular succeeding matter, and search in vain for it through the volume. The 105th page which follows, presents other parts of the subject. If the editor will be so kind as to send us the absent pages or a more perfect copy of the work, it will give us pleasure to discuss its merits, particularly as it advocates a doctrine which we regard as dangerous, the contagiousness of yellow fever.

We have also received—*A Report on the late Epidemic of Yellow Fever in Augusta, Georgia.* This is an able though brief vindication of what we conceive to be the correct views of the origin and cause of the disease. We hope to review this in connection with the first work, at length in our next number. The following are the conclusions arrived at unanimously, by the medical society of Augusta.

"1. *Resolved*, That from the facts disclosed in the foregoing report, we are of the opinion that the cause of the late epidemic was not introduced into our city, in any manner whatever, from foreign sources; nor do we believe the disease to have exhibited, in the slightest degree, a contagious nature.

"2. *Resolved*, That in our opinion, the cause of the late epidemic arose from the accumulation, at the upper "trash wharf," between Lincoln and Elbert streets, of upwards of two hundred thousand cubic feet of vegetable and animal matter, collected from the lots and streets of the city, since the year 1834, which was opened, and exposed to the action of the sun, in the months of May and June last.

"3. *Resolved*, That we most earnestly urge upon our fellow citizens, the necessity of having this fountain of miasmata, and other similar collections, thoroughly and effectually eradicated during the present winter; and also, the importance of having a system devised, the faithful execution of which, shall, in future, secure our inhabitants from the direful effects of like accumulations in our vicinity, and the deleterious consequences arising from a general neglect of cleanliness, which, for some years past, has been too common in our city, owing to its unprecedented state of health."

The American Medical Almanac, for 1840. Designed for the daily use of Practising Physicians, Surgeons, Students and Apothecaries. By J. V. C. Smith, M.D. Editor of the Boston Medical and Surgical Journal. Vol. II. continued annually. Boston: Marsh, Capen, Lyon & Webb. pp. 152.

Dr. Smith has, at great labor and no little expense, collected a mass of valuable matter relating to the profession in the United States, which he has embodied in this very neat annual. We find some errors, principally in the faculties of the medical schools, which will doubtless be corrected in the next number. We think that a copy of this very useful work ought to be in the hands of every physician, student, and apothecary in the United States, and that every member of the profession should feel it a duty to furnish Dr. Smith with correct information in reference to the medical institutions, &c. throughout the country, so that he may have no reason to complain in future. "Although it is extremely difficult to procure the medical and surgical statistics of the United States and British America, a hope is entertained that the succeeding volume, in 1841, will far exceed its predecessors in point of accuracy and copiousness of detail."

We sincerely wish him every success in this undertaking.

Cyclopædia of Practical Surgery, embracing a complete view of all the departments in Operative Medicine. Edited by W. B. Costello, M.D., Member of several learned Societies, National and Foreign. Part IV. January, 1840. London: Sherwood, Gilbert & Piper.

We have just received this number of the Cyclopædia of Practical Surgery, and with great gratification, as from the long interval since the publication of Part III. we feared that it was suspended altogether. But we are assured that the cause of delay has been entirely removed, and that in future the parts will be published punctually every alternate month.

The articles contained in the present number are as follow: Ankylosis, by W. J. Little, M.D.; Anthrax, by W. B. Costello, M.D.; Antiphlogistics, by H. T. Chapman; Anus, by John Malyn; Aqueous Humor, Aquo Membranitis, by R. Middlemore; Argenti Nitras, by H. T. Chapman; Bend of Arm, by C. Tarral, M.D.; Arsenic, by G. G. Sigmond, M.D.; Diseases of Arteries, by W. B. Costello, M.D.; Anomalies of Arteries, by P. H. Green, M.B.; Traumatic Arthritis, by J. Blackburn; Articulations, by J. Blackburn; Asphyxia, by P. Bennett Lucas.

The work is printed in double columns, new type cast for the purpose, and superfine paper of the royal 8vo. size, and is illustrated by engravings and wood cuts.

The character of the contributors to this work and the style of publication, must commend it to the favorable notice of the profession. When shall we see an American Cyclopædia of Medicine and Surgery which will unite in it the talent of the best qualified medical men in all parts of the Union, successfully prosecuted?

REPORT OF THE SURGEON GENERAL.

SURGEON GENERAL'S OFFICE,
November 6th, 1839.

SIR: The time having arrived when I should again render an account of the fiscal transactions and other operations of the medical department of the army, I beg leave to submit to you the following statement and report:

The medical supplies for the army within the last year were regularly furnished when required, and of the best quality, and they have been accounted for in a satisfactory manner, both by the medical officers of the army, and the private physicians employed in the military service of the United States.

The amount of the appropriation for the medical and hospital department remaining on the 30th of September, 1838:		
In the hands of disbursing agents, was, - -	$ 3,308 20	
In the Treasury of the United States, - - -	40,768 04	
And the amount appropriated by the act of congress of the 3d of March, 1839, was, - - - -	24,400 00	
Total, - - - - -		$68,476 24
Of this sum there has been paid, during the fourth quarter of 1838, and the first, second, and third quarters of 1839, at the treasury:		
On account of the pay and other claims of private physicians,	10,307 00	
On account of medical and hospital supplies, - -	6,399 50	
On account of iron bedsteads, (300 in number,) for military hospitals, - - - - - -	4,650 00	
And by disbursing agents for medical and hospital supplies,	15,601 28	
Total, - - - - -		36,957 78
Leaving a balance on the 30th of September, 1839:		
In the hands of disbursing agents, of - - -	5,470 59	
And in the treasury, - - - - -	26,047 87	
Total, - - - - - -		31,518 46
The amount of the appropriation for erecting hospitals at military posts remaining on the 30th of September, 1838:		
In the hands of disbursing agents, was - - -	3,546 50	
Received since, by special requisitions on the treasury, and placed in the hands of disbursing agents, - -	68,553 89	
Total, - - - - -		72,100 39
Of this sum there has been expended in completing the hospital at Fort McHenry, and in the erection of hospitals at Fort Columbus and Sackett's Harbor, - - -	15,748 65	

Leaving a balance in the hands of disbursing agents of		$56,351 74
The amount of the appropriation for preventing and suppressing Indian hostilities remaining on the 30th September, 1838:		
In the hands of disbursing agents, was - - - -	1,270 46	
Of this sum there has been expended in the purchase of extra medical and hospital supplies for the troops in the field,	219 41	
Leaving a balance which was replaced in the treasury, of	1,051 05	
There has also been received within the past year:		
From the appropriation for the selection of sites for marine hospitals on the western waters, (by a special requisition on the Treasury,) - - - - - -	387 25	
Of this sum there has been expended in the payment of the accounts of agents employed in selecting sites for the hospitals,	387 25	
From the appropriation for carrying into effect a treaty with the Cherokee Indians (by a transfer warrant in favor of the medical department,) - - - - - -	4,124 78	
Of this sum there has been expended in the purchase of medicines and hospital stores, to replace supplies furnished by the medical department to the emigrating Cherokee Indians,	4,124 78	
And from the quartermaster's department on account of sales of medicines, hospital stores, &c. in the interior of Tennessee,	417 25	
Of this sum there has been expended in renewing the supply of medical stores, - - - - - -	417 25	
In addition to the sum of forty thousand nine hundred and fifty-seven dollars and eighty-eight cents, which has been expended from the appropriation for the medical and hospital department, disbursements to the amount of three or four thousand dollars, (growing out of the employment of militia forces and the dispersed state of the regular army throughout Florida and over the northern frontier,) have been made on account of the medical department, from the appropriations for suppressing Indian hostilities and the protection of the northern frontier, by the quartermaster's department and other disbursing agents of the government, in the purchase of extra medical supplies, and in the payment of physicians temporarily employed in the public service; but as the most of these debts were contracted without the knowledge or consent of this department, and the accounts are not rendered to this office, an accurate statement of the transactions and of the expenditures cannot be given in this report. The amount of money on hand at the close of September, 1838, together with the sum of the receipts within the past year, then being:		
On account of the appropriation for the medical and hospital department, - - - - - - - -	68,476 24	
On account of the appropriation for erecting hospitals at military posts, - - - - - - -	72,100 39	
On account of the appropriation for suppressing Indian hostilities, - - - - - - - -	1,270 46	

On account of the appropriation for the selection of sites for marine hospitals on the western waters, - -	$387 25	
On account of the appropriation for carrying into effect a treaty with the Cherokee Indians, - - - - -	4,124 78	
On account of sales of medicines, hospital stores, &c. -	417 25	
Total, - - - - - - -		146,777 37
And the sum of all expenditures, together with the money replaced in the treasury during the same period, being:		
Under the appropriation for the medical and hospital department, - - - - - - -	36,957 78	
Under the appropriation for erecting hospitals at military posts,	15,748 65	
Under the appropriation for preventing and suppressing Indian hostilities, - - - - - - -	1,270 46	
Under the appropriation for the selection of sites for marine hospitals on the western waters, - - -	387 25	
Under the appropriation for carrying into effect a treaty with the Cherokee Indians, - - - - - -	4,124 78	
And out of the money arising from the sales of medical stores, &c. - - - - - - - -	417 25	
Total, - - - - -		58,906 17
There remained on the 30th September, 1839, in the hands of disbursing agents and in the treasury of the United States, applicable to future disbursements, the unexpended sum of		$87,871 20

The number of cases of indisposition which have been under treatment by the medical officers of the army and private physicians temporarily in the service of the United States, during the last twelve months, was twenty-two thousand eight hundred and forty-nine; twenty-two thousand two hundred and forty-eight of which occurred within the past year; six hundred and forty-nine being cases that remained of the preceding year. Of the whole number of persons reported sick twenty-one thousand nine hundred and forty have been restored to duty, one hundred and thirty-one have been discharged the service, fifty-five have deserted, and two hundred and fourteen have died; leaving, on the 30th of September, 1839, nine hundred and nine still on the sick report.

From the monthly returns and other reports it is estimated that the aggregate mean strength of the army for the last year was eight thousand nine hundred and fifty; and as the number taken sick during the year was twenty-two thousand two hundred and forty-eight, and the aggregate of deaths was two hundred and fourteen, it will appear that the proportion of cases of disease to the number of men in service was as two and a half to one, or two hundred and forty-nine per cent.; the ratio of deaths to the number of men as one to forty-two, or two and four-tenths per cent.; and the proportion of deaths to the number of cases treated as one to one hundred and seven, or a fraction less than one per cent.

From our observations it is found that the troops which have taken the field from southern stations, have suffered less from sickness, and lost fewer men by disease, since they came into Florida than while they were stationary at their posts. Nor have the corps from the north suffered from disease and death to the extent that is generally believed.

The reports in this office, from every section of the United States, show this result; and as I am satisfied of the fact, I deem it to be my duty to correct an error of opinion that seems to pervade the country to the manifest injury of the military service.

In further illustration of this subject the statements marked C and D are submitted.

The law requiring an examination of candidates for appointment, and of assistant surgeons for promotion in the medical department of the army, has been rigidly enforced.

Two junior surgeons whose examination for promotion had been unavoidably deferred, and three assistant surgeons of five years' standing, were ordered to present themselves, and thirty-six applicants for appointment to the medical staff of the army, were invited to appear before the medical board lately in session at New York. The surgeons and assistant surgeons having undergone a thorough examination upon all the branches of medical science, and received a favorable report from the board, the first two were sustained in their advanced position, and the last three rendered *legally* qualified for promotion. With the candidates for admission into the army, however, the result of the examination was very different. Of the thirty-six who were invited to appear before the board, twelve declined the examination, (two after having reported to the board,) two were excluded on account of their age, and twenty-two were examined; and of these last, five only were found to possess all the qualifications essential to an appointment.

It may be that we have erected too high a standard of merit—that too much is exacted from the human intellect; we are not conscious, however, that more has been asked, than ordinary talents, a good primary education, and the actual study of the science of medicine, can attain. At all events some few have reached the highest scale of excellence; and while as many of these choice spirits can thus be secured, as will fill our ranks in each succeeding year, we shall not relax in our requirements upon those who claim to be admitted into the medical staff of the army.

But to account for the humiliating result of the examination on the present and on former occasions, we have only to look to the system of education which now obtains in the country.

The facilities of acquiring medical knowledge, or rather of becoming professional men, are so great, that many persons are seduced into an attempt to become physicians, without the basis of an education. There are others again, who having received a good primary education, and also passed through a regular classical or collegiate course, (and thereby rendered qualified for scientific pursuits,) are induced from motives of economy and convenience, or with the view of sustaining institutions of their own state, to enter some of the small medical schools, where they cannot possibly have the advantages of anatomical dissection, (the groundwork of the profession,) or the means of clinical instructions upon an extended scale. A knowledge of the science of medicine is not, like divinity and law, to be acquired by reading books in the closet, and listening to the reading of a course or two of lectures; it can only be attained by seeing and feeling, in connexion with the knowledge acquired from books.

The great multiplication of medical schools in every section of the country, together with the proverbial facilities of becoming licensed practitioners, has so lowered the standard of professional excellence, and so manifestly degraded the medical character of the United States, that the present system will be, it is to be hoped, by a more enlightened public opinion ere long put down. The interest of the country is so much divided by these various institutions, and the patronage to each is consequently so small, that many of our ablest medical men will not accept places in them; were it

practicable, however, for the professors to obtain adequate compensation for their services, it would be impossible to find professional men enough of talents and attainments to occupy the several chairs in the innumerable medical schools in every town, village, and cross-road place, throughout our states and territories.

Every officer of this department has been almost continuously on duty, seldom more than two at a time on leave of absence, and in no instance more than four even temporarily absent from duty. The duty in Florida, particularly, has been so irksome as to produce some murmuring from two or three individuals of the corps; but as those persons generally grumble the most who have the least cause of complaint, and are the least deserving perhaps of special consideration, I have not permitted those symptoms of dissatisfaction to interfere with the general arrangements of the department, or to paralyze for a moment our efforts to meet the actual requirements of the service.

The service in Florida to most of the medical officers employed there, has been, indeed, not only irksome but exceedingly laborious and hazardous, many of them having from the very dispersed state of the troops, to give their attendance to two, three, or more posts stands; and frequently passing from one station to another without an escort, and occasionally under the fire of the enemy.

Among others whose lot it was to perform more than ordinary duty, was the accomplished surgeon, Richard Clark, who, in the height of his usefulness, was lately cut off by disease.

Dr. Clark having been called to a distant post, where the whole command, officers and men, lay prostrate from disease, he at once gave all the energies of his mind and body to the assistance of his suffering comrades; and while thus engaged in administering, by day and by night, to the diseases and to the wants of the sick, he was inhaling the noxious vapors of the place, even to his own destruction. After rendering much assistance, and indeed, all the aid practicable, he himself sank to the ground, and in a day or two afterward yielded up his gallant spirit, a martyr to the calls of humanity and his country's good.

For this very severe and perilous duty—this extraordinary devotion to their country's cause, (this extra service being peculiar to themselves, and not absolutely to be required of them,) these officers are entitled to a full measure of praise; and I do not hesitate thus to express the high sense that I entertain of their public services and of their public worth.

In obedience to your instructions, a commission consisting of three medical officers was appointed to examine the banks of the Ohio river, between Pittsburg and Wheeling, and also the shores of Lake Erie, with the view to the selection of sites for marine hospitals. The board having completed the reconnoisance of the country designated, and collected a mass of useful information touching the subject of inquiry, made a detailed report of its proceedings, recommending a change of location for the hospital on the upper Ohio, from Wheeling to the vicinity of Pittsburg, while it sustains the decision of the former board in favor of Cleveland over Presque Isle and other points, as the site for the hospital on the shore of Lake Erie. As this report takes a different view of several matters and circumstances from that of the former commission, I beg leave to recommend them both to your attentive perusal and consideration.

From these two able reports and the various statistical and other documents accompanying them, the president will receive all the lights upon the subject of inquiry of which it is susceptible, and can consequently determine understandingly upon the points at which the contemplated hospitals shall be erected.

I have, within the past year, with the assistance of one or two medical officers,

brought up almost all the back business, which had for years, in consequence of the want of force in the office, been accumulating upon the department.

The accounts of every officer of the department, and of private physicians in the service of the United States, as far as this office is concerned, have been brought up and closed to the 31st of March; and, with the exception of four or five, whose returns have not come in, even to the 30th of September of the present year.

I have also had prepared, or have now in a state of forwardness, a meteorological register, embracing thermometrical observations, for a series of years, in every section of our states and territories; also, a report on the vital statistics, of the army and the medico-topography of the military stations, extending over a period of twenty years; all which will be ready for the press in a few days, should their publication be authorized by congress or by the department of war.

I beg leave, in conclusion, to call your attention again to the fact that the services of another clerk are indispensable to this office. While I have the control of the department I shall keep the business up; and if I cannot obtain the aid of a regular clerk, I must call into requisition the occasional services of one or more of the medical officers of the army.

All which is respectfully submitted.

THOMAS LAWSON,
Surgeon General.

Hon. JOEL R. POINSETT,
Secretary of War, Washington.

ABSTRACT C.

Showing the number of cases treated and the number of deaths in the United States' Army, during the year terminating the 30th September, 1839.

Remaining at last report.			Quarters of the year.	Taken sick or received in hospital during the year.																					
				Fevers.																					
Sick.	Convalescent.	Total.		Intermittent.	Remittent.	Synochal.	Typhus.	Acute bronchitis.	Pneumonia.	Pleurisy.	Phthisis.	Catarrh.	Cynanche.	Cholera.	Colic.	Gastritis.	Enteritis.	Diarrhœa.	Dysentery.	Hepatitis.	Rheumatism.	Ophthalmia.	Gonorrhœa.	Syphilis.	Epilepsy.
312	289	601	Fourth quarter, 1838,	919	111	13	8	37	13	26	10	521	74	24	50	12	7	628	239	16	195	91	86	71	15
			First quarter, 1839,	439	68	11	1	55	49	77	19	523	78	24	60	23	4	305	200	11	305	71	83	42	9
			Second quarter, 1839,	702	115	21	2	11	17	43	18	418	50	73	63	31	16	242	383	14	242	86	56	58	17
			Third quarter, 1839,	1,701	462	52	2	4	25	25	23	446	64	85	167	13	9	287	366	11	287	81	149	98	12
			Total, -	3,761	756	97	13	107	104	171	70	1,908	266	206	340	79	36	1,462	1,188	52	1,029	329	374	269	53
			Deaths from each disease: Fourth quarter, 1838,	4	9	—	2	—	3	—	5	—	—	—	—	1	1	10	8	—	1	—	—	—	1
			First quarter, 1839,	—	—	—	—	—	1	1	10	—	—	—	—	1	1	4	6	—	—	—	—	—	1
			Second quarter, 1839,	—	6	—	—	—	2	—	4	—	—	—	—	—	—	4	2	—	—	—	—	—	1
			Third quarter, 1839,	2	30	—	4	—	1	—	3	—	—	—	—	1	2	8	4	—	—	—	—	1	1
				6	45	—	6	—	7	1	22	—	—	—	—	3	4	26	20	—	1	—	—	1	4

ABSTRACT C—*Continued.*

Quarters of the year.	Taken sick or received in hospital during the year.										Total.	Aggregate.	Returned to duty.	On furlough.	Discharged service.	Deserted.	Died.	Remaining.		
	Apoplexy.	Delirium tremens.	Nyctalopia.	Dropsies.	Scorbutus.	Ebriety.	Hernia.	Wounds and injuries.	Ulcers and abscesses.	All other diseases.								Sick.	Convalescent.	Total.
Fourth quarter, 1838,	1	7	5	1	7	63	5	498	185	767	4,713	5,314	4,560	3	19	26	57	343	306	649
First quarter, 1839,	—	8	15	7	8	70	5	528	176	789	4,153	4,802	4,150	2	57	5	37	297	254	551
Second quarter, 1839,	1	6	21	8	65	93	14	519	215	1,022	5,253	5,804	5,027	61	36	8	42	228	402	630
Third quarter, 1839,	3	22	12	12	31	128	9	832	501	1,105	8,129	8,759	7,709	28	19	16	78	362	547	909
Total,	5	43	53	28	111	354	33	2,377	1,077	3,683	22,248	*22,849	21,446	94	131	55	214			
Deaths from each disease. Fourth quarter, 1838,	1	1	—	1	—	2	—	2	2	3	57									
First quarter, 1839,	—	1	—	3	1	2	—	—	—	5	37									
Second quarter, 1839,	1	2	—	2	4	2	—	2	1	9	42									
Third quarter, 1839,	1	2	—	1	1	1	—	9	—	6	78									
	3	6	—	7	6	7	—	13	3	23	214									

* The aggregate for the year is not the result of the addition of the aggregate of each quarter, but of the total "remaining at the last annual report," added to the total number of cases occurring within the present year.

THOMAS LAWSON,
Surgeon General.

ABSTRACT D.

Exhibiting the relative proportion of disease and mortality among the troops serving in Florida, and those stationed at the prominent posts in other districts of the United States, during the year terminating the 30th of September, 1839.

District of observation.	Mean strength.	Cases.	Deaths.	Ratio of mortality, per centum of mean strength.	Proportion of deaths to the number treated.
North & East	1,900	4,787	37	2	1 in 129
North West	1,220	2,762	11	0 nine-tenths.	1 in 251
South West	1,461	4,622	65	4 and three-tenths.	1 in 71
Florida	3,092	6,510	73	2 and four-tenths.	1 in 89

With the view to attain the nearest approximation to a correct result in regard to the climatorial influence of different regions of our country, all deaths that come under the class of casualties, have been excluded in this table. As the quarterly reports of sick in Florida, include, independently of the regular troops, a few volunteers, sailors and laborers employed in the quartermaster's department, it has been found, in a few cases, impracticable to make an exact separation. The deaths given, however, are entirely confined to the regulars. In regard to the invalids sent out of Florida, it is ascertained that the ratio of mortality is not materially affected from this cause; for, during the present year, no more than fifty-four were carried to the north; and of these, two only, one of whom was excessively intemperate, died.

THOMAS LAWSON,
Surgeon General.

Observations on the Preparation of Hydrocyanic Acid, and some of the forms in which it is exhibited. By DAVID STEWART, *Chemist and Pharmaceutist, Baltimore.*

HAVING had an opportunity of preparing this article by a number of the processes that have been proposed during the last ten years, I do not hesitate to give preference to the following: as the result is an acid which must necessarily be of uniform strength, is not liable to change as that of the pharmacopœia is, and is made at less than one-half the expense, although it corresponds with it in strength.

FORMULA.

Take sulphuric acid of commerce,* - - - - 700 grains, (troy,)
" ferrocyanuret of potassium (prussiate of potash,) 1063 " "
" water, one pint.

Distil with a gentle heat from a sand bath until about five fluid ounces have passed over into a receiver, containing three ounces of distilled water, (surrounded by ice.) Take one drachm of this product, and add it to a solution of half a drachm of nitrate of silver, in four ounces of distilled water. After the precipitate has subsided, test the supernatant liquid with a weak solution of nitrate of silver, and if a precipitate occurs, add another portion of nitrate of silver, say ten grains in an ounce of distilled water. Suffer the cyanide to subside, and test again the supernatant solution; if free from hydrocyanic acid, collect the precipitate on a small filter, wash it with distilled water, dry at a temperature of 212°, and weigh it accurately—multiply the number of grains by eight, and every seventy grains indicate one drachm of medicinal Prussic acid: for instance—if the cyanide weighs seventeen and a half grains, the acid is exactly double the strength of the officinal acid. As the relative strength of the acid is now ascertained, it can be easily diluted to the officinal standard—this, however, should be done with alcohol. I have kept the hydrocyanic acid thus diluted for more than a year, without any apparent change, and suppose it may be kept for any length of time.

T. Everitt, Esq. professor of chemistry to the Medico Botanical Society, has indicated the best proportion of ferrocyanuret of potassium and sulphuric acid, in a very valuable paper upon this subject, (see American Jour. Pharm. vol. 2d, p. 161,) viz. 212.47 grains of the chrystals dissolved in two fluid ounces of water, added to as much sulphuric acid as shall contain one hundred and twenty grains of real acid. He says that forty-one grains of real hydrocyanic acid will pass over into the receiver with the first third of the water. I am surprized to find that this gentleman also speaks in favorable terms of the cyanide of potassium, as a means of exhibiting Prussic acid. I consider it one of the most variable of all compounds; it is apt to pass into carbonate of potash and ammonia—formiate of potash and hydrocyanate of ammonia. From the observations of Dr. Trouve, of Caen, (published in the Journal de Chimie Medicale,

* As the commercial sulphuric acid is not always of the same specific gravity, it may be well to estimate the value of a parcel and keep it for the purpose of preparing this article—this may easily be done by precipitating a certain number of grains of it with muriate of Baryta, or by means of a specific gravity measure.

x. 23,) it appears that there is a great difference in the moist and long prepared cyanuret of potassium and that which is dry and recent, and that this difference may occasion dangerous results.

It appears from the experiments of M. M. Pelouse and Geiger, that a concentrated solution of cyanuret of potassium, subjected to ebullition in vacuo, is decomposed by the mere elevation of temperature, so that one proportion of cyanuret acting on four proportions of water, gives rise to one proportion of ammonia, which is disengaged, and to one proportion of formiate of potash.

Being engaged in the preparation of this article about five years since, I was led to examine its habitudes, and agree with M. Boidet in asserting, that it should never be employed for medicinal purposes, except in the state of fused cyanuret, obtained as follows:

The chrystals of ferrocyanate of potassa should be bruised and well dried, to deprive them of their water of chrystalization, before they are heated in a crucible, as the cyanide of potassium may be decomposed by a high temperature in contact with steam; (see Journal de Chimie Medicale, September, 1831.) The anhydrous powder is now exposed to a red heat in a well closed crucible. When this vessel is broken, a mass is found formed of the cyanuret of potassium and quadri carburet of iron; if this mass is broken with care, we may, (as is observed by M. Robiquet,) separate a certain quantity of fused cyanuret in white compact fragments, perfectly pure and fit for medicinal use. The cyanuret thus obtained, presents but a small surface to the action of the air, and should be the *only one* used in medicine, for it is the only one which can be administered with safety; but even in this form, the energy of its properties requires the most scrupulous attention on the part of the physician who prescribes it.

The maximum dose is estimated to be one grain—(see Materia Med. by Edwards & Vavasseur, page 348,)—and I have no doubt it might be increased to ten if the cyanide was prepared according to the process of this pharmacopœia. But one grain of the pure cyanide of potassium is equal to about thirty drops (or twenty minims,) of Prussic acid of the U. S. Pharmacopœia strength—one drop of which is a dose. One ounce of Prussic acid of the U. S. Pharmacopœia contains the cyanogen of one drachm of cyanuret of mercury; i. e. 14.725 grains of real hydrocyanic acid. Twenty-eight grains of cyanide of potassium contain the same quantity of cyanogen, and are consequently equal to one ounce of Prussic acid of U. S. P.

If distilling is to be dispensed with, it is of the first importance that this active and valuable medicine should be prepared in some definite form, which the physician can always depend upon. It is also desirable that it should be had at a price corresponding with the commercial Prussic acid if possible, in order to avoid the temptation of substituting commercial Prussic acid for the officinal.

I have proposed the cyanide of silver as the best means of fulfilling these intentions; it is very easily prepared—always contains exactly the same amount of cyanogen—its purity is easily tested—is not affected by light or moisture, and can be sold at a less price than the pure cyanide of potassium—for instance: A parcel of pure muriatic acid contains 19.27 chlorine in 54.5 acid; fifty-two minims of this acid diluted with distilled water, to one ounce, forms hydrocyanic acid of the officinal strength, when simply mixed with seventy grains of cyanide of silver; (the chloride of silver subsides in an insoluble powder.)*

* Professor Everitt directs "forty grains of the cyanide of silver—seven fluid ounces and twenty minims of water, and forty minims of dilute hydrochloric acid, (specific gravity 1.129;)

The expense of Prussic acid thus prepared should not exceed fifty cents per ounce, and as the chloride of silver can easily be reduced to the metallic state by a beautiful play of affinities, lately discovered, the expense may be still further reduced by those who wish to economise.

I suggest the propriety of forming the hydrocyanic acid at double the above strength by using half the quantity of water indicated, and after the chloride has formed and subsided in a well stoppered phial, that it should be diluted with a quantity of alcohol equal to the water omitted, as I have found the hydro-alcoholic solution to keep for an indefinite length of time.

cork closely—shake several times for the first quarter of an hour—set aside to allow the chloride to fall—decant the clear liquid into another bottle to be preserved for use: every fluid drachm will contain one grain of real hydrocyanic acid." This is evidently an error; the professor must have intended seven drachms of water, as forty grains of cyanide of silver contain eight grains of cyanogen and a fraction, which, together with the acidifying principle, would not equal nine grains of hydrocyanic acid.

DOMESTIC INTELLIGENCE.

An account of a Worm in the Eye of a Horse, with remarks on Spontaneous Generation. By SAMUEL CHEW, M.D. of Baltimore.

THE value to medical men of an acquaintance with the anatomy, physiology, and pathology of the lower animals is so well known that no apology can be necessary for the subject of the present paper.

While on a visit in Calvert county in this state, during the latter part of last March, my attention was called by a friend to an interesting case of disease in the eye of a horse. This animal was stated to have been suffering for some time from pain and weakness of its left eye. About a fortnight or three weeks before I saw it, these symptoms had been discovered to arise from the presence, within the globe of the eye, of a living worm, which was very small when first observed, but had grown rapidly, and at the time that I examined it was apparently between three and four inches long. It was bent several times on itself, and was in such constant and rapid motion, that at first sight I felt doubtful for a moment whether there were two worms or only one. About two-thirds of the cornea of the affected eye were nebulous, and vision seemed to be greatly impaired, if not entirely abolished. The iris was distinguishable, but whether it retained its natural sensibilities I could not readily ascertain. The horse was very poor, and looked ill, but did not appear to be suffering pain. His owner who was a free negro, wished me to extract the worm, and I should have done so had I had sufficient leisure, but I was greatly hurried at the time, being on my way home, and apprehensive of getting to the port too late for the steamboat. A few days after, the horse was sold to a gentleman, who brought him to this city, where he is at present exhibited as a show, the condition of his eye forming the subject of much discussion and popular wonder.

Upon the same farm where this case happened, a precisely similar one, as I am informed by my friend Dr. Mackall of Calvert, was observed about fifteen years ago. This place lies on the Chesapeake Bay, and is bordered on one side by Fishing Creek, a small, muddy stream whose extensive marshes have long rendered the adjacent district notorious for diseases of miasmatic origin. The occurrence, however, of but two cases in so long a period as fifteen years, it would be scarcely reasonable to connect with any peculiar local influence.

The worm in the present instance was in the anterior chamber of the eye, and had never been seen in any other part of the organ. It was of a white color, of not quite the thickness of a common pin, and apparently, as well as I could judge by a hasty

inspection, one of the filariæ of Linæus,* a genus distinguished by an elongated, slender, thread-like body, and which are chiefly found in the cellular membrane, and in those cavities of animals which do not open externally. That they occasionally infest the eye of the horse, and also the human eye, has been long known, and is referred to by almost all good writers on verminous diseases and helminthology.

Their presence in the eye is not more extraordinary than that of other entozoa in the brain, the ovaria, the spleen, the heart, the blood vessels, and in the pleural and peritoneal sacks of man and other animals.

How they obtain possession of situations seemingly so inaccessible, whether they originate within them, or are introduced from without, is a question which has received opposite answers from different naturalists.

The ancients were fully persuaded, that under certain circumstances animals may come into existence without the aid of parents, being, in the literal sense of that expression, *nullis majoribus orti*. but produced by the plastic force of heat and moisture, and springing up by a process which has received the appellation of equivocal or spontaneous generation.† In confirmation of this doctrine, they have recorded many curious observations, which all reflect much honor upon the skill and discernment of their philosophers.

An immense serpent, we are told, was seen upon the head of Cleomenes, when his dead body was hanging exposed upon a cross by the order of the king of Egypt. The general terror excited by a circumstance, which at first sight appeared of such direful augury, was not dispelled until the *savans* of Alexandria informed the public that the thing was entirely natural, for that as bees are bred from dead oxen, wasps from horses, and beetles from asses, so human carcasses, when the marrow has been brought by evaporation to a proper consistence, produce serpents.‡

The origin of bees from the putrid blood of oxen,—

——— "quo modo cæsis jam sæpe juvencis
Insincerus apes tulerit cruor,"—§

has been celebrated by the muse of Virgil, and appeared sufficiently rational to the learned and philosophic Varro. Neither the poet nor the practical writer *De Re Rustica* entertained any suspicion respecting the real source of these supposed bees, or had ever observed their extreme resemblance to flesh-flies.

Hollerius assures us, that a certain Italian of his acquaintance had a scorpion formed in his brain, in consequence of undue indulgence of his immoderate fondness for the odor of sweet basil. That the intemperate use of this plant is perfectly capable of producing such an effect, is manifest, says Hollerius, from the observations of Pliny, who asserts that very complete scorpions may at any time be manufactured by bruising sweet basil between two stones, and laying it for a few days in the sunshine to be concocted.

* Class Entozoa, order Nematoidea, of the Animalia Radiata of Cuvier.

† These terms are generally used synonymously, but, according to a proper distinction of recent physiologists, they express very different processes. *Spontaneous* generation is the production of organized beings by the fortuitous combination of inorganic elements. *Equivocal* generation is the origin of new beings from parents *unlike* themselves, in consequence of some irregularity in the functions of the parents, or of the incipient decay and degeneration of their tissues. See Carpenter's *Principles of General and Comparative Physiology.*

‡ Docuerunt apes ex bobus, ex equis vespas putrescentibus germinare, scarabœos ex asinis pullulare eodem deductis: humana vero corpora, tabe medullæ inter se compacta et concreta, edere angues. Plutarch. in Vit. Cleomenis. See also Pliny, Hist. Nat. L. x, c. 66; L. xi, c. 20.

§ Georgic. 4, 284.

In modern times, the application of the theory of spontaneous generation has been greatly limited and retrenched by the advance of scientific knowledge, and at the present day its most zealous advocates contend for its occurrence only among the infusoria and entozoa of the animal, and among some of the minute cryptogamic plants of the vegetable kingdom.

The reasons for attributing in certain cases a spontaneous or fortuitous origin to the entozoa, the one of these three classes of beings with which we are at present most concerned, have been derived principally from the difficulty of accounting on any other supposition for their presence in living animals, and especially in the unborn fœtus, in the eggs of birds, and in those cavities of the body into which there is no opening from without.

In opposition to any considerations of this kind, we should reflect, that though it may be difficult in certain cases to trace the descent of entozoa from parents like themselves, it must be at least equally so to account for their existence without parents; and that to evade one embarrassment by encountering another of a different nature, but equal or greater in magnitude, is but a very unsatisfactory mode of philosophizing.

It is the province of analogy, as Quintilian has remarked, "*incerta certis probare,*" to reflect light from what is known upon that which is doubtful. Every thing which we know with certainty respecting the production of animals tends to strengthen the analogical argument against spontaneous generation; and this argument, it should be observed, has increased in force pari passu with the advance of physical science.

The fact that almost all of the entozoa are known to possess distinct organs of reproduction, and to be capable of continuing their species like other animals,* would appear to have an important bearing upon this question. The ablest modern advocates of spontaneous generation admit, that the very creatures which, according to their hypothesis, have come into life by this process, propagate their kind in the ordinary manner.† We are told by Rudolphi, that an individual of the filaria family, the genus to which the worm spoken of in the commencement of this paper probably belongs, produces at a single birth many thousands of thousands of offspring.‡ Now, for the preservation of a race enjoying the anti-malthusian faculty in so eminent a degree, the dubious possibilities of spontaneous generation can scarcely be deemed very important or essential.

Two of the great guiding rules of philosophy, viz. that we should admit of no more causes than are sufficient to explain effects, and should assign to the same effects as far as possible the same causes, appear to be strictly applicable to the present inquiry, and to militate directly against the reception of the doctrine of spontaneous generation.

In stating some of the objections to this doctrine, I have taken no account of the theologic scruple which is sometimes urged against it, because I consider it very idle and frivolous. In endowing matter with life, the hand of Divine Providence is equally discernible whatever process be used, whether the new creature be an additional link to a

* Those of the order cystica or hydatids are gemmiparous, having the reproductive faculty not confined to any special part, but diffused over their whole surface. Of other entozoa, some are hermaphrodites, being supplied with both male and female organs, and exhibiting in different varieties the power of mutual hermaphrodital and of individual hermaphrodital impregnation. In others again, as the filariæ, the sexes are distinct, and the concurrence of two individuals is necessary for reproduction. See *Todd's Cyclopædia of Anatomy and Physiology*—Article *Entozoa*, by R. Owen, Esq.; and Professor Carus' *Introduction to Comparative Anatomy*, Vol. 2.

† See the article, *Generation*, by Dr. Allen Thomson, in *Todd's Cyclopædia.*

‡ Filariæ nostræ prole quasi farctæ sunt, quod si harum longitudinem illius vero minutiem spectas, fœtuum multa millium millia singulis tribues. *Hist. Eutozoor.*

long chain of being, or the first link of a new chain. The power and wisdom of the Deity are equally wonderful, incomprehensible, and adorable in either case.

In the investigation of this as of many other questions, it is easier to perceive what opinions should be rejected than what should be embraced. Of the various attempted explanations of the presence of parasitic animals in the confined cavities of the body, there is perhaps none which in the present state of our knowledge can be considered entirely satisfactory or entitled to be received with much confidence. The one which appears to me to be the most probable, though it is by no means free from some considerable difficulties,* supposes the fact, that the ova of entozoa may occasionally be carried by the lacteal vessels into the sanguiferous system, and circulated with the blood, until they are accidentally stopped in some part of the body capable of forming a suitable nidus for their development and growth.†

The filariæ are not the only entozoa that invade the eye of animals; various others, especially those of the order trematoda, are known to occur in this organ. The human eye affords a habitation to individuals of several different orders. Among these the cysticercus cellulosus, a hydatid worm, has occasionally been seen.‡ The minute body and spherical caudal vesicle of this creature might, by a careless or ignorant observer, be readily mistaken for a small spider; and it is perhaps to an exaggeration of such an error that we owe the account, lately detailed in the Newspapers, of a lady in one of the Southern States whose eyes were filled with spiders.

* The most important of these are—*first*, the difficulty of explaining the introduction of the germs of entozoa from extraneous situations into the alimentary canal or other parts of living animals, and thus bringing them into contact with the absorbents; and *second*, the apparent want of accordance in certain cases between the size of the ova and the caliber of the absorbent and capillary vessels. But *to the first* of these objections it may be replied, that the mode of diffusion of some of the entozoa, which was once obscure and unintelligible, is now perfectly explained, and that in course of time the progress of science may perhaps throw equal light upon that of all the rest; *to the second*, that we do not know exactly to what extent, under particular circumstances, ova may be modified in size and form, and lacteals and capillaries distended, without organic injury.

† This opinion, advocated by Ehrenberg, is objected to by Muller, who considers it to be opposed, in certain cases, to the known data afforded by the micrometer, *unless* it be admitted, that the smallest particle of the germinal matter formed by entozoa already existing, is as capable of propagating them as an entire ovum. See *Muller's Elements of Physiology*, Part 1st, and *Hodgkin's Lectures on the Morbid Anatomy of the Serous and Mucous Membranes*, Vol. 1. Lec. 7.

‡ Cases of this kind are noticed by Soemmering, Logan and others.

FOREIGN CORRESPONDENCE.

No. 1.

LETTER OF DR. LINTON, OF KENTUCKY.

London, *November 26th*, 1839.

Dear Doctor,

In compliance with my promise, to communicate to you from time to time, whatever I thought of interest or utility to the profession, I have taken my pen to address you.

To attempt a detail of the modes of treating diseases, medical or surgical, in the various institutions, and by the many high authorities of this huge metropolis, would be attempting more than I could accomplish; and moreover, if accomplished, it would be a work of supererogation. Are not these things written at full length by the voluminous authors to whom this island has given birth? And are not these sources of information accessible to every American physician? They are. This being true, the best plan that I can pursue is, to give such accounts of the hospitals, medical schools, and other kindred institutions, as are not ordinarily published—interspersing them with such facts and fragments, bearing directly on the practice of the profession, as it may be my fortune to glean.

Among the numerous hospitals with which this city abounds, Guy's and St. Thomas', near the London Bridge—St. Bartholomew's, near St. Paul's Church—the North London, and St. George's are the most celebrated. I shall commence with a notice of the latter.

St. George's Hospital is situated at the corner of Hyde Park. The grand front faces Green Park, and is two hundred feet in length; in the centre is a vestibule thirty feet high, surmounted by lofty pilasters. Its theatre for the delivery of lectures, will contain about one hundred and sixty students, adjoining which is a museum of anatomical preparations. Situated between two large parks, this hospital enjoys in a greater degree than any other in the city, the advantages of a comparatively pure atmosphere; and I have no doubt that observation will abundantly prove that cachectic diseases, and all affections, (whether requiring the aid of the surgeon or physician,) of an indolent and adynamic grade, yield more readily to the means used for their relief in this, than in other similar institutions, less auspiciously located. The number of patients accommodated here is about four hundred. A medical and surgical school is attached to the hospital, the professors in which attend daily to the various wards. The number of students is near one hundred and fifty. Among the lecturers at this institution there

are some whose names and writings are familiar to the American profession. I give the following extract from their prospectus.

"Theory and Practice of Medicine, Drs. McCleod and Seymour; Materia Medica, do.; Medical Jurisprudence, Drs. Lee and McCauley; Anatomy and Physiology, Messrs. Tatum and Johnson; Chemistry, Messrs. Braude and Farraday; Surgery, Sir Benjamin Brodie, and Messrs. Babington and Hawkins; Botany, Dr. Dickson."

Without wishing to detract from the merits of others, I am disposed to regard Sir Benjamin's lectures as the greatest attraction of the institution; all of them, however, display talent and research, and but few of them more of either than those of young Mr. Johnson, (son of Dr. James Johnson,) for whom I here venture to predict an exalted station among the worthies of the profession.

Sir Benjamin Brodie is not eloquent; but he indulges little in that which requires it—theory. All that he utters is worthy of the student's note book, and a place in his memory into the bargain. From his appearance he is not more than fifty years of age; his hair is not at all grey, and what is almost a miracle in the profession in England, he is not bald; eyes grey; figure rather slight and elegant, height about five feet nine inches. I have been listening to him on the subject of calculus, and the means of its removal. He asserted that all stones are primarily formed in the kidneys, except those of the phosphate of lime, and those whose nuclei are extraneous substances, as the end of a bougie, &c.; and remarked that in most instances, when the symptoms of calculi are first experienced, in order to pass them it is only necessary to dilate the urethra by bougies, gradually increased in size—then give active diuretics—make the patient retain a bougie as long as possible, until the bladder is full of urine, then let him stand up and withdraw the instrument. The result will be a large stream of water, with which some, if not all the calculi will pass.

When, however, (as is unfortunately too often the case,) the calculi become too large to be passed in this way, he advises the catheter-shaped forceps, which open after introduction into the bladder. He prefers those invented and used by Heurteloup to those of Sir A. Cooper. In fact he regards the former as one of the greatest inventions of modern surgery. When the urethra is sufficiently dilated, these forceps are introduced and opened, and the stone readily falling between their mandibles, is extracted if not too large—if it is, the forceps are the very instrument to break it, or rather to crush it. Or it may, perhaps, be got as far as the bulb of the urethra, in which situation it is a very safe and simple operation to cut down to it and extract it. In order to perform these operations without injury to the bladder, it should contain at least four or five ounces of water. Women, owing to the peculiar organization of this part, are more amenable to the operation than the opposite sex, and it is well that such is the fact, for in them, the operation of lithotomy, says Sir B., always produces irremediable incontinence of urine.

When, however, there is stricture of the urethra—enlargement of the prostrate, or great irritability of the bladder—and when these states of the parts, so unfavorable to the operation just mentioned, cannot be removed, then the knife must be resorted to. Sir B. prefers the lateral operation—I saw him perform it on Friday last. He is a slow but a very safe operator—he regards lithotomy as a very hazardous operation. True, he says, a surgeon will sometimes have the pleasure of seeing some dozens of his patients in succession recovering from it, but he will have better luck than falls to the lot of many, if he does not experience sometimes almost the reverse. He remarked that it was not generally known that the great Cheselden retired from the practice of surgery in consequence of the unfortunate termination of a great many of his operations for stone.

In passing through the wards I did not see a great deal worthy of detailing to you. The apparatus for broken and dislocated limbs was various, and in some respects new to me; but in order properly to manage cases of this kind a knowledge of anatomy, with some mechanical genius, is all that is required. Each case is a problem of itself, which the surgeon must solve before he applies the bandage and splints. Mr. Hawkins, one of the surgeons, remarked that in cases where the bones were slow in uniting, he found invariably, that the urine was alkaline, and that by correcting this alkalinity, the deposition of osseous matter on the broken fragments was induced. I leave you to account for the phenomenon.

A word in relation to the mode of treating paralysis, practiced at this establishment. The spinal column is blistered from the neck to the sacrum, with the ordinary unguentum epispasticum, and the blistered surface is dressed with unguent. hydrag. Regimen according to the habit of each individual case. It is said that great success has attended the practice. It cannot be said that there is any thing new about it, yet I thought it worthy of a passing notice.

P.S. Since writing the above, I have heard Mr. Farraday. He lectures thrice a week at the Royal Institution, in Sir H. Davy's former theatre. He does not really belong to the school of St. George's, though his name is registered in the prospectus. Several hundreds crowd to hear his lectures. They are indeed "*an attraction.*"

Dr. Dunbar.

We hail with pleasure the first letter of our friend Dr. Linton, and anticipate much gratification from a continuance of the correspondence. We feel well assured that it will greatly interest the medical profession of the United States. Since the introduction of steam navigation on the Atlantic, there is a great community of interest with our European brethren, which we trust will increase every year.

DOMESTIC CORRESPONDENCE.

We put on record the following interesting cases, contained in a private letter from a respectable physician of Virginia.

CASE I.

"On the seventh day of October, in the year 1836, I was called to visit a lady by the name of McK., who was at that time in labor. On examination the umbilical cord had protruded into the vagina—the pulsation was then very strong. In fifteen or twenty minutes after, another examination was made when the pulsation had ceased, and the foot and leg had advanced. I then made exertion to bring the head forward—to my astonishment, I found the neck of a child with a perfect finger adjoined to the extreme end of it. This being brought down, I discovered the head was large and would be attended with great difficulty in delivering, the woman being very small, with a narrow pelvis. I, however, succeeded in a few minutes in delivering her of a child with two heads, adjoined together at the crowns—the faces reverted, the back of the one coming to the forehead of the other—each precisely alike—the one a perfect child, the other a perfect head and neck, and perfect finger of a common size. The heads measured fifteen and a half inches around, where they were joined, and ten inches long. The mother did extremely well."

CASE II.

"The following evening I was called to visit a lady, by name J., who was in labor. She had been in bad health for several months. I delivered her of a son, a healthy looking child, who continues so. I also delivered her of another child which had been so long dead that its joints were separated. The whole body presented a mass of corruption—the skin was not broken."

MISCELLANEOUS NOTICES.

NATIONAL MEDICAL CONVENTION.

The National Medical Convention for the revision of the Pharmacopœia of the United States assembled in the City Hall, Washington, on the 1st January, 1840.

The following delegates represented their respective medical societies and colleges in the convention, viz:—Theophilus C. Dunn, M.D., Rhode Island Medical Society; Lewis Condict, M.D., New Jersey Medical Society; Franklin Bache, M.D., Henry Bond, M.D. and Joseph Carson, M.D., the College of Physicians of Philadelphia; G. B. Wood, M.D., University of Pennsylvania; Robley Dunglison, M.D., Jefferson Medical College; William W. Morris, M.D. and James Cowper, M.D., Delaware Medical Society; John R. W. Dunbar, M.D., John C. S. Monkur, M.D. and Edward Foreman, M.D., Washington University, Baltimore; Joshua J. Cohen, M.D., Medical and Chirurgical Faculty of Maryland; Thomas Sewall, M.D. and N. W. Worthington, M.D., Medical Society of the District of Columbia; Thomas Miller, M.D., Harvey Lindsly, M.D. and John W. Thomas, M.D., Columbian Medical College; John W. Davis, M.D., Vincennes Medical Society of Indiana; and William Bacon Stevens, M.D., Georgia Medical Society.

The credentials of the delegations from the White Mountains Medical Society of Vermont, from the Medical Society of New Hampshire, from the Albany Medical College, and from the College of Physicians and Surgeons of Lexington, Kentucky, were presented by Dr. Condict, President of the Convention of 1830—but the delegates were prevented from attending. After the rising of the Convention, however, Josiah Bartlett, M.D., delegate from the New Hampshire Medical Society, and Samuel G. Baker, M.D. and William E. A. Aikin, M.D., delegates from the University of Maryland, reached Washington, and by public notice in the papers stated their full concurrence in the measures adopted by the Convention.

The Convention elected Lewis Condict, M.D., of New Jersey, President; George B. Wood, M.D., of Philadelphia, Vice President; N. W. Worthington, M.D., of Georgetown, D.C., Secretary; and Harvey Lindsly, M.D., of Washington, Assistant Secretary.

With the view of giving the various medical interests of the country their due weight in the deliberations of the Convention, the surgeon-general of the army, and the senior naval surgeon at Washington, were invited to participate in the proceedings. After some other preliminary business, the Convention adopted the following resolution, offered by Dr. Bache.

Resolved, That the delegates from the different medical bodies represented in this Convention be requested to present any written communications with which they may have been charged.

Upon calling over the several delegations, it appeared that no written communication had been forwarded to the Convention, except by the College of Physicians of Philadelphia. Dr. Bache presented from this college several documents, which he stated had been prepared with great industry and care, with a view to facilitate the revision and emendation of the Pharmacopœia of 1830. This communication elicited discussion; but, with a view to more definite action, Dr. Lindsly proposed the following resolution, which was adopted.

Resolved, That the communication from the College of Physicians of Philadelphia be referred to a committee, who shall also be instructed to report a plan by which the revision and publication of the Pharmacopœia may be carried into effect.

It was resolved that the committee should consist of five members, to be named by the president; and Drs. Bache, Davis, Stevens, Cohen and Dunn, were appointed.

Dr. Wood offered the following proposition, which was adopted.

Resolved, That a committee be appointed to report a plan for the organization of the next convention for revising the Pharmacopœia.

It was ordered that the committee consist of three members, to be named by the president; and Drs. Wood, Sewall and Dunglison were appointed.

The committee to whom the documents from the College of Physicians of Philadelphia were referred, and whose duty it was to arrange a plan by which the revision and publication of the Pharmacopœia might be carried into effect, made the following report, which, with the accompanying resolutions, were adopted by the convention.

"The committee are of opinion, that the labors of revision, constituting the communication from the College of Physicians, would form a proper basis for the new Pharmacopœia; and that this communication, and all others that shall be received from bodies which have appointed delegates to this convention, should be referred to a committee of revision and publication, to meet in Philadelphia as soon as practicable. As it is desirable that the committee here proposed should have the assistance of pharmaceutical bodies, it is recommended that authority be given to it to request the co-operation of colleges of pharmacy in the United States. A revising committee, thus constituted, and clothed with power to fill their own vacancies, to publish the work after the completion of the revision, and to take order on all incidental measures necessary to carry out the objects of the convention, would, in the opinion of this committee, form a body to which the revision and publication of the Pharmacopœia might be safely trusted. To carry out these views, the committee recommend the adoption of the following resolutions by the convention.

"1. The communication from the College of Physicians of Philadelphia, and all other communications which may be received from bodies that have appointed delegates to this convention, shall be referred to a committee of revision and publication, consisting of seven members, three of whom shall form a quorum.

"2. The committee thus constituted, shall meet in Philadelphia, and be convened, as soon as practicable, by its chairman.

"3. The committee shall be authorized to request the co-operation of the colleges of pharmacy in the United States; to publish the work after the completion of the revision, and to take all other measures which they may deem necessary to carry into effect the object of the convention.

"4. The committee shall have power to fill its own vacancies.

"5. When the committee shall have terminated their labors, they shall prepare a

report of their proceedings, and transmit it to the secretary of this convention, to be laid before the next convention.

"All which is respectfully submitted.

FRANKLIN BACHE,
JOHN W. DAVIS,
W. BACON STEVENS,
JOSHUA J. COHEN,
THEOPHILUS C. DUNN,
} *Committee.*

Washington, Jan. 3d, 1840."

The convention then proceeded to choose the members of the committee of revision and publication, proposed in the above report; and Drs. Wood, Bache, Dunglison, Cohen, Dunn, Stevens, and Sewall, were appointed.

The committee whose duty it was to arrange a plan for the organization of the next convention for revising the pharmacopœia, made a report, which, at the suggestion of Dr. Stevens, was amended so as to make the first Monday in May, 1850, the time for the meeting of the Convention, instead of the first Monday in January, 1850. The report thus amended, and modified in other respects to suit the change, was adopted by the Convention, as follows:—

"The committee appointed to suggest a plan for organizing the next convention report, that they have taken the subject into consideration, and ask leave to submit the following resolutions, which, with a few modifications, are the same as those adopted in 1830 for the organization of the present Convention.

"1st. The president of this Convention shall, on the 1st day of May, 1849, issue a notice, requesting the several incorporated state medical societies, the incorporated medical colleges of physicians and surgeons, and the incorporated colleges of pharmacy, throughout the United States, to select a number of delegates not exceeding three, to attend a general convention to be held at Washington, on the first Monday in May, 1850.

"2d. The several incorporated bodies thus addressed shall also be requested by the president to submit the pharmacopœia to a careful revision, and to transmit the result of their labors through their delegates, or through any other channel, to the next convention.

"3d. The several medical and pharmaceutical bodies shall be further requested to transmit to the president of this Convention the names and residences of their respective delegates as soon as they shall have been appointed, a list of whom shall be published, under his authority, for the information of the medical public, in the newspapers and medical journals, in the month of February, or March, 1850.

"4th. In the event of the death, resignation, or inability to act, of the president of the Convention, these duties shall devolve on the vice president, and should the vice president also be prevented from serving, upon the secretary, or the assistant secretary, the latter acting in the event of the inability of the former.

GEO. B. WOOD,
THOS. SEWALL,
ROBLEY DUNGLISON,
} *Committee.*

Washington, Jan. 3d, 1840."

The following resolutions were offered by Dr. Wood, and adopted by the Convention:

Resolved, 1st. That the secretary take charge of and preserve the existing records, until his successor shall be appointed by the convention of 1850, when it shall be his duty to hand them over to such successor. 2d, That, in case of the death, resignation, or inability to act, of the secretary, his duties shall devolve upon the assistant secretary.

And 3d, That it be recommended to future conventions to appoint their secretary or secretaries from members residing in the District of Columbia.

Dr. Bond offered the following resolution, which was adopted:—

Resolved, That the committee of revision and publication be requested to take such measures as they may deem most effective to induce physicians and apothecaries to adopt the nomenclature of the Pharmacopœia, in their prescriptions and labels.

Dr. Dunglison offered the following resolution:—

Resolved, That the officers of the Convention be requested to prepare forthwith for publication such part of the transactions of this Convention as may seem to them adapted for making extensively known its important objects and proceedings, and that they be authorised to publish the same in the various medical journals of the United States, and in such of the daily or other newspapers as they may think proper.

This resolution was adopted, and it was made the duty of the secretary and assistant secretary to carry it into effect.

Having transacted business of great interest to the medical profession of this country; having passed votes of thanks to the officers of the Convention "for the able and dignified manner in which they had discharged their respective duties," and to the Board of Aldermen of Washington, for the use of their hall, the Convention, after a session of three days, characterised by a spirit of generous cordiality which must contribute greatly to secure the objects for which they assembled, adjourned.

By order,

N. W. WORTHINGTON, *Secretary.*
HENRY LINDSLY, *Assistant Secretary.*

P. S. The medical journals throughout the United States are respectfully requested to copy the foregoing abstract of the proceedings of the Convention.

NEW MEDICAL WORK.

Messrs. Haswell, Barrington and Haswell, of Philadelphia, announce that they will shortly publish Stokes' Lectures on the Practice of Physic, with additions embracing a large circle of diseases, not treated of by Dr. Stokes—By John Bell, M.D. of Philadelphia, Lecturer on Institutes of Medicine in the Philadelphia Medical Institute, &c.

We are gratified that one so well qualified to complete the work, as left by Dr. Stokes, and to comment upon the text by appropriate notes, has undertaken the labor. We would have been better pleased to have seen an announcement of an original work by Dr. Bell on the Practice of Medicine—for we know that he has been repeatedly solicited to prepare such a work, which from his acknowledged soundness of judgment, long practice and ability united, would be well received by the medical profession throughout this country.

UNIVERSITY OF MARYLAND.

March 11th, 1840.—The annual session of this Institution closed this day. There were sixty-five students matriculated, of whom the following fourteen received the degree of Doctor of Medicine:

JOHN H. TURNER, Maryland.
GIDEON B. SMITH, Maryland.
GEO. W. MILTENBERGER, Maryland.
SAMUEL RIDOUT, Jr. Maryland.
MILES L. DONALDSON, Maryland.
JOHN E. MOLER, Virginia.
RICHARD E. WESTON, North Carolina.
WILLIAM ALEXANDER CLENDENIN, Maryland.
JOHN GRATTAN CABELL, Virginia.
DE WILTON SNOWDEN, Maryland.
*WM. BOSWELL MOORE, Dublin, Ireland.
JOHN REYNOLDS, Virginia.
GEORGE REEDER, Maryland.
THOS. C. WORTHINGTON, Maryland.

The Honorary degree of Doctor of Medicine was conferred on
FRANCIS DEAN, of Genessee county, New York, and
H. H. HAYDEN, of Maryland.

SAMUEL GEORGE BAKER,
Dean of the Faculty of Physic.

*The medal for the best Latin Dissertation, was awarded to this gentleman.

WASHINGTON UNIVERSITY OF BALTIMORE.

At a commencement, held *March 4th*, 1840, the degree of Doctor of Medicine was conferred on the following gentlemen, by Judge ARCHER, one of the Board of Visitors.

W. PERRY TILDEN, Maryland—Structure and Functions of the Absorbents.
LOUIS KEAN, Maryland—Local Inflammation connected with various grades of Fever.
*DANIEL P. HOFFMAN, Maryland—Phthisis Pulmonalis.
GEORGE COLBERT TYLER, Virginia—Generative System.
JOHN W. FORREST, Maryland—Modus Operandi of Medicine.
LEWIS T. TURNER, Georgia—Delirium Tremens.
JOHN N. BAXTER, Maryland—Anatomy and Physiology of the Skin.
T. M. BUSK, Maryland—Stethoscope, its use and abuse.
JOHN EVANS, Maryland—Innervation.
ELI M. GATCHELL, Maryland—Yellow Fever.
JOHN E. H. LEGGETT, Maryland—On the Nature, efficient Cause and ultimate purposes of the Menstrual Fluid.
TIDEMAN HULL, Maryland—Purpura Hemorrhagica.
WAKEMAN BRYARLY, Maryland—Acupuncturation.
JOHN S. LONG, Virginia—Evil effects of Tight Lacing on the Female Constitution.
ISAIAH C. LOOMIS, Pennsylvania—Colic.
WILLIAM D. HARRISON, Virginia—Tetanus.
ABRAHAM GARBER, Pennsylvania—Indigestion.
*JAMES BUNTING, Maryland—De Signis Morborum.
WILLIAM H. POOLE, Maryland—Intermittent Fever.

The Honorary Degree of Doctor in Medicine was conferred on Dr. ROBERT A. DURKEE, of Baltimore.

JOHN R. W. DUNBAR, *Dean*.

* Latin Theses.

BALTIMORE COLLEGE OF DENTAL SURGERY.

We acknowledge with pleasure the receipt of the annual announcement of the above named institution. By which it appears that the Legislature of Maryland, at its last session, has given it legal existence, under the special supervision of Chapin A. Harris, M.D., Professor of Practical Dentistry; Horace H. Hayden, M.D., Professor of Dental Physiology and Pathology; H. Willis Baxley, M.D., Professor of Anatomy and Physiology, Thomas E. Bond, Jr. M.D., Professor of Special Pathology and Therapeutics; and the following named persons as a Board of Trustees and Visitors,—Thomas E. Bond, Sen., M.D., *President;* John Fonerden, M.D., *Secretary;* R. S. Stuart, M.D., Joshua I. Cohen, M.D., Thomas C. Risteau, M.D., Rev. John G. Morris, Rev. Beverly Waugh, John H. Briscoe, M.D., Samuel Chew, M.D., Rev. G. C. M. Roberts, M.D., J. J. Graves, M.D., Rev. J. P. K. Henshaw, Rev. James G. Hamner, Leonard Mackall, M.D., Enoch Noyes, Dentist.

We hail with no ordinary pleasure this effort to carry out the observations made in the preceding number of this Journal, on this important subject. We feel confident that under the direction of the talented gentlemen in the several chairs, it will prove a lasting benefit to that branch of the profession whose immediate interests it contemplates. We have understood the prospect for a large class is much more flattering than its warmest friends have anticipated. We wish it the greatest possible success, and hope sincerely that nothing may arise to dim the prospect of its rising influence.

☞We call the special attention of the members of the Dental Profession, and of such as intend to direct their attention to the study of Dental surgery, to the announcement of the Professors in this Institution, in the present number of this Journal.

MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND.

The annual convention of the Medical and Chirurgical Faculty of Maryland, will be held in the Saloon of the Baltimore Law Buildings, corner of Lexington and St. Paul street, on Monday the 1st of June next, at half past ten o'clock, A. M. The members of the Faculty throughout the State are respectfully requested to attend, as business of vital interest to the Faculty will be laid before the convention.

ROBT. A. DURKEE, M.D.
Recording Secretary.

OBITUARY.

Died in this city, of Pulmonary Consumption, in the 38th year of his age, George Wetherall, M.D. He commenced the study of medicine in 1823, with a very liberal education under the late distinguished professor, Dr. Samuel Baker, (in part at the Baltimore Infirmary,) and obtained the degree of Doctor of Medicine, from the University of Maryland in 1826 with honor. After pursuing the practice of his profession for several years in different sections of the country, he returned to this city. In 1836 he was chosen one of the attending physicians to the Baltimore General Dispensary, and discharged the duties devolving upon him, in this institution for three successive years, with diligence and success, as far as his feeble health would permit. He terminated his brief career of usefulness, on the afternoon of the 6th of March, after the confinement of but a few days.

Died in Philadelphia, on the 18 inst. (March,) Dr. Joseph Parrish in the 61st year of his age. Dr. P. was one of the veterans of the Rush school. We hope to give a fuller notice in our next.

THE

MARYLAND

Medical and Surgical Journal.

July, 1840.

NOTES OF THE EPIDEMIC CHOLERA,

On board the U. S. Frigate CONSTELLATION, *in the harbor of Mahon, in September* 1834—*By* S. C. LAWRASON, M.D. U.S.N.

IN September, 1834, we were lying in port Mahon, awaiting the arrival of Commodore PATTERSON, preparatory to receiving our final orders for home. The weather was delightful—the atmosphere unusually serene and clear. Good old Mahon was rendered doubly attractive by the temporary sojourn of many Spanish families of distinction, during the prevalence of the cholera in Spain. The officers and crew of our ship were never in better health or spirits. Time was speeding on most pleasantly, when on the night of September 14th, P. Mid. MYERS was attacked with an unknown and uncommon disease, of frightful virulence. He attributed its invasion to an apricot, which he had eaten early in the evening. At daylight his friends were struck with horror at his altered aspect. Although the disease was new to us, yet from the tout ensemble of the symptoms—the supine position, the filiform or almost insensible pulse—the marble feel and blue color of the skin—the dim, sunken eye, surrounded by a dark circle—the

hollow cheek—the distorted features, presenting an alarming, but characteristic expression—the limbs affected with painful cramps, the profuse clammy sweat—the ardent, uncontrollable thirst—the entire suspension of the urinary secretion—the abundant liquid discharges by stool and vomiting—an intelligent and anxious attention to medical questions—the voice broken and stifled—we at once pronounced our patient in the collapse of epidemic cholera. The gloom that now pervaded our ship, but a few hours since all cheerfulness and gaiety, can only be imagined. He was removed to the cabin, where every remedial mean was resorted to, to produce reaction, with the most humiliating failure. I never felt so keenly the uncertain powers of my profession as I stood by the side of this cherished companion and popular young officer, and witnessed the certain progress of the disease to a fatal termination, without possessing the slightest means of staying it. We had before us the various therapeutic methods adopted in all the hospitals at Paris, together with the numerous practices of the East, but gathered nothing capable of making a favorable impression. Surrounded by a number of officers, his messmates and devoted friends, he breathed his last on the afternoon of the 15th, about five o'clock. There was now no doubt of this frightful epidemic, of whose dreadful ravages we were painfully familiar, being in our very midst—and we felt it to be an enemy that would defy all our defensive operations—an invisible agent that would mock at our medical skill, or professional lore; in a word, we were entirely at the mercy of a tremendous foe. There was a fearful watching among us for the next victim. We were not kept long in suspense. On the 16th, John Whitmore and William Smith were attacked, the former of whom died on the afternoon, and the latter on the night of the same day. All the day of the 17th passed off without the report of a new subject. Hope began to look up; but on that very night James Madison was seized, and expired the next morning. How terribly vivid is the remembrance of that night! It was about ten that I was in the Sick Bay attending to professional duty. I was examining the dispensary for medicines adapted to the appalling malady, and looking over the thousand and one remedies said to have been employed with success. The men were all in their hammocks, and every thing was still—when a commotion was heard a short distance out on

the berth-deck; it was caused by Madison turning out of his hammock in great agony, to come into the Bay for relief—but cholera had seized upon him, and his heart-rending cries for relief could only be met by sympathy and experimental applications that availed nought. The disease progressed steadily onward, and he died next morning. It was now that we shifted our anchorage to Hospital Island, took possession of the deserted building, (the same building to which the French transported their wounded after the attack upon Algiers,) established hospital accommodations there for the time being, and every man, as he reported himself aboard, was instantly removed ashore. One of the junior medical officers remained aboard. On the 21st Corporal Rudder, and John Davis 2d, were attacked, and died on the morning of the 22nd. Francisco Cordoni was taken on the 24th, and died the same night. William Nicholas died on the morning of the 25th; Henry Long, on the evening of the 25th; John Blade, on the morning of the 26th; James McKewan, on the morning of the 27th; James Maloy, on the morning of the 28th; Jacob Spangler reported the same morning, and died in a few hours. This man was one of the most youthful and able-bodied of the crew—a perfect man-of-war's man—cracking his jokes upon the disease up to the very morning he was seized. It was truly a painful spectacle to witness the dreadful conflict between this powerful subject and the subtle disease; he fought the mysterious foe with all the physical and moral energy he would have exerted against some wild beast. In this case, we opened the veins of each arm, but the blood would not flow. I would observe, that we were not favorably disposed to the lancet; we made trial of blood-letting in a case, which had nearly proved fatal; a sense of fainting came over the patient, after the abstraction of a few ounces, which rendered his restoration for some time doubtful. In the case of Spangler was witnessed the existence of muscular life long after the respiration had ceased, in a very remarkable degree. The transit in this case from a state of the highest health to death, was so sudden and rapid, that it was some time before local life was extinct. Some fifteen minutes after he had ceased to respire, his arm was violently uplifted to a right angle by the spasmodic action of the biceps,—indeed every muscle in his powerful frame appeared to be quivering with the lingering remains of life. It was a beautiful

physiological sight, but an awful mystery to the astounded sailors. The crew manifested no superstitious repugnance to our autopsic examinations, but on the contrary rather desired them, in hopes that some clue might be discovered towards arresting the malady.

At this period Capt. R. by the advice of our much esteemed and skilful surgeon, Dr. Morgan, determined to get under way, and stand off and on the harbor, until the arrival of the Commodore. On the morning of the 29th we removed all the sick on board and stood out. On the ensuing morning we lost another man, James Murry; and on the 1st October, were attacked George Philips and William Allen, both of whom died on the night of the 2d, and were consigned to a grave in the placid waters of the Mediterranean. Thus finding this step ineffectual in checking the fatal work, and believing any longer delay to be attended with more disastrous consequences, our captain, by the urgent advice of the surgeon, dispatched the purser on shore to arrange the final accounts of the ship preparatory to returning to the United States. He returned on the afternoon of October 2d, when we bore away with a cracking wind for Gibraltar. After six days' passage we anchored in the bay without a single case on board. It began to subside from the hour of our departure, and in two days we were out of the baleful atmosphere and comparatively well. I have named all the fatal cases. It is not unlikely but some friends of the unfortunate victims may see this article. The average number on the sick list during its existence, amounted to between seventy and eighty After the first few cases, in which some remedial experiments were made, drawn from the methods of treatment adopted in the Parisian hospitals, we founded our treatment upon general therapeutic principles. Almost all cases, which came under medical management previous to the accession of collapse, were simply treated and with success. Most of the cases were of this character, as strict orders were given to the sentries to report every man seen vomiting or visiting the head too frequently.

The treatment consisted simply of castor oil internally, with medium doses of laudanum, and free local depletion by cups to the abdominal parietes; stimulating frictions were vigorously applied to the limbs. This treatment had been reported to have been employed by a missionary in India with great success in 1825. It came recommended by its simplicity, and from witnessing the

utter inertness of stronger means. But three cases were restored, who had gone through all the stages of the disease. In all other cases it was suspended in its career by treatment. A young man named Stearnes, of delicate constitution, was one of the three. For twenty-four hours he was pulseless—entirely free from cramp, and complaining of nothing but intense thirst, which he undertook to relieve by free and copious draughts of porter; I well remember my astonishment at the number of bottles he used. Whether or not this had any agency in restoring him is entirely a matter of conjecture.

No dietetic measures were adopted by the officers; all the abundant fruits and vegetables of the season were used freely, and without the slightest restriction. The medical officers only urged the necessity of avoiding excesses which, at any other time, would have been indulged in with impunity. There was not a doubt, but long continued inebriation predisposed to the disease—and many men were attacked after much drinking, who might, very probably, otherwise have escaped.

On a careful examination of the various methods adopted in India and Europe, we found their prescriptions varied ad infinitum, and drove us to a simple treatment based upon general principles, and such as comported with our own experience. If we may credit the numerous reports, we have successful authority for every imaginable treatment, which proves that no individual plan could be relied on, and that our only safe guide was to be found in general principles and local circumstances.

I would observe in conclusion, that we left Gibraltar in consequence of the disease again appearing. It remained with us one week in the Atlantic; during this time we had two fatal cases, whose bodies we consigned to the wide waters.

EXCERPTS,

From the Case Book of a Western Physician—By W. J. Barbee, *M.D. of Cincinnati, Ohio.*

The following cases have occurred in my practice in the Western country within three years past, and may, perhaps, be of some interest and benefit to practitioners.

Case I.—*Lesion of the Nerves of Motion distributed to the Muscles of the Neck, and of the external Respiratory Muscles.*

March 1838. Mrs. ——, of Indiana, aged twenty-five,—good constitution—free from all hereditary affection—a married lady, and the mother of two children—has been afflicted for several months with a singular affection of the muscles of the neck and of several muscles concerned in respiration.

Her head (unless by a special action of the will to the contrary) is drawn by successive jerks to the left until the chin touches the head of the humerus. The respiratory muscles seem to perform their office rather lazily, so that her breathing is somewhat difficult. She has been in this condition for about six months, and the affection has been creeping upon her for a year. It commenced by a buzzing in the left ear, followed by twitching of the muscles of the opposite side, accompanied by what (from her description) appeared to be Tic Doloreux. Stomach and bowels at this time slightly deranged. After administering some mild medicine for the disordered state of the primæ vie, she was directed to be cupped repeatedly over the cervical vertebræ, to live sparingly, and to keep her bowels in good condition. This course was rigidly observed for three weeks, without any change in the patient's condition, and galvanism was used. This, too, had little or no effect. In the course of the ensuing summer she was attacked with remittent fever, which lasted a couple of weeks. Upon her recovery from this, the affection of the neck disappeared and has not returned since.

Case II.—*Intermittent Rheumatism.*

About a year ago I published in the Boston Medical and Surgical Journal a few cases, illustrating the principle that local diseases have a tendency to assume the type of a prevailing epidemic or endemic. Since that time I have seen similar cases; and in Illinois, about seven miles from the Wabash river, on the National road, I treated a very interesting case of intermittent rheumatism. The case occurred in May 1839, during the prevalence of vernal intermittents. The patient had been complaining for about two weeks, when he applied to me for relief. Upon investigating the case, I discovered that upon every other day he was attacked about one o'clock with acute pains in all his extremities, which lasted until near sun-down. These pains were preceded by a general sensation of chilliness, and accompanied with fever. I treated the case as I would one of intermittent fever, and the patient recovered. He was taken again, after exposure, in the month of June, during a cold spell, and I attempted to treat the case without *quinine*, but could not succeed. Upon the proper use of this article he was restored.

Case III.—*Cholera Morbus occurring monthly in lieu of Menstruation.*

I was called, July 15th, 1839, to a widow woman who was suffering under all the agonies of cholera morbus, and after affording some temporary relief, I entered into a conversation with her upon her situation, with a view of adopting a treatment for permanent relief. I learned that since the birth of her last child, which was two years old, she had been subject to these attacks monthly, at the period when her menses should appear—that menstruation had been entirely suppressed, and that she had given no milk during all this period. She had been habitually costive; her digestion was bad, and head-ache had been her constant companion. In a day or two I relieved her of cholera morbus, and then put her upon a course of aloetic pills. I prescribed one to be taken every night until the bowels became entirely regular; afterwards, three a week. This course of treatment satisfied my expectations—her menses were re-established, and I never heard of her having another attack of cholera morbus.

Case IV.—*Menstruation during Pregnancy.*

Mrs. B——, of Illinois, manifested on August 10th every sign of pregnancy, except the absence of the menstrual discharge. She had had nausea and vomiting for four months; the mammæ were enlarged and quite sensible; the abdomen was protuberant, and she said that she felt the motions of her child. But during all this time menstruation had occurred regularly every month, and at the time I was called to her the discharge was excessive; insomuch that I adopted measures to suppress it.

I learned from her husband one month subsequent to this visit, that she again menstruated, but the discharge was slight. From that time I am unacquainted with the history of the case; I merely mention the facts as they came to my knowledge, in order to afford additional evidence that menstruation may occur during pregnancy. W. J. B.

Cincinnati, O. April 25, 1840.

REPORT OF SURGICAL CASES.

By Professor Horatio G. Jameson, *Senr. of Baltimore.*

Case of lithotomy, in which a calculus of unusual size was successfully removed.

I was called December 27th, 1839, by my friend Dr. William Johnston, of York, Pa. to the case of Daniel Innerst, a young man a little upwards of twenty years of age. He had been suffering greatly for several years, but the last two his sufferings were such as to render him quite an invalid. Dr. Johnston having made arrangements for the operation, had also very properly put him under some preparatory treatment, as to diet and medicinal agents. We found the patient unusually free from the torments of his disease, and his mind fully made up to meet the operation.

The operation was conducted in the usual way with the knife, but it may not be amiss to say a few words on this part of the operation. I prefer a small scalpel, having a cutting edge, not exceeding an inch in length; in this way is all risk avoided of cutting the pudic artery, as we pass the knife into the bladder. Where a knife having a long cutting edge is used, while the attention of the operator is directed to the cutting of the knife near the point, the edge is liable to enlarge the outward portion of the wound; whereas, the short edged scalpel will obviate all risk on that score. It may be important for the young surgeon to remember, that it is by no means necessary to dilate the external wound to the extent recommended, in so spirited and able a manner, by John Bell; and which, besides endangering the rectum, leaves a vast wound to heal—a matter this of no trivial kind, since, in addition to what we have said, the patient suffers unnecessary pain in such extensive division of parts. It is a rule with me never to go beyond the point opposite the middle of the anus. An incision commenced about an inch to an inch and a half, in the adult, from the root of the scrotum, and carried to the anus, will

always be amply sufficient. I need hardly tell the reader, that the groove of the curved staff needed for the scalpel, should be on the right side of it, and it should be deep, with smooth, well polished edges.

The parts having been divided according to the above views, and with the apparatus as noticed, I had a wound which, I am confident, did not involve the neck of the bladder beyond the base of the prostate. I found it admitted the forceps (Barton's) with facility, and, therefore, I considered it sufficient. Many efforts were made, without success, to grasp the stone, but it started away from before the forceps—it being too large for the slope of the instrument. I next introduced a large pair intended for breaking the stone, but met with no better success. Foiled completely in this way after many trials, I searched carefully for the size and particular form of the stone; and, perceiving that it was of unusual size, and flattened in form, I determined upon crushing it with the large forceps; but such was the solidity of the calculus, that my strength was inadequate to breaking it, although the forceps were strong, and having handles of a length to afford much power. Seeing that I could not break it, there now seemed to be no alternative but to extract it whole. For a moment I balanced in my mind whether I should enlarge the wound internally, or continue my efforts for its extraction whole; so fearful are my apprehensions of large wounds of the bladder, which would serve to allow the urine to flow in upon the viscera, that I soon decided in favor of further trial at extraction, through the wound as it was. After several efforts, I succeeded in getting Barton's forceps to grasp the stone on its flat or thin side; and, getting it now to enter like a wedge into the wound of the bladder, I succeeded by gentle and oft repeated efforts, to bring it still a little further on; and now directing the pulling force from side to side, I finally succeeded in bringing the stone beyond its greatest breadth. Now in all this, though I had to use considerable force, yet was there not by any means a single violent effort—the success arose from a perseverance, gentle, determined, and steady. When I pulled the stone to one side, I set the end of my thumb firmly against the edge of the wound on the side from which I pulled, and by this means I could plainly perceive, that I thereby gained in the extraction—continuing these efforts from the side, I succeeded

in extracting a stone weighing six ounces, and which measured exactly nine inches in its greater circumference. It was a flat oval in form, being fully an inch thick, and two and a half wide on its thin sides, where widest and thickest.

I do not know the time employed in this operation, but a better terminate of the case could not have been had under any other circumstance, though this was a very tedious operation. It goes to prove the correctness of the opinion, under reasonable qualifications, that operations are performed soon enough that are performed well enough. Nevertheless, I would not blindly adopt such an opinion, except so far as good sense and a cautious procedure requires,—a guarded, cool, deliberate procedure; to keep a patient any longer than a skilful use of means requires is reprehensible, nor must delays ever be indulged in, without the clearest conviction that what we are doing is for the best.

In proof of our having conducted the operation with care, we may offer the pleasing truth, that there was not one unpleasant symptom followed the operation. There was no inflammation, other than what necessarily attended the incisions; but little fever; almost no pain. No after treatment was required except a rigid diet, a light aperient or two, and a few anodynes at night. I introduced a tube into the bladder through the urethra, but here, as sometimes happens, the urine would not flow well through the tube, but flowed out by its sides. In this state of things, doctor Johnston very properly withdrew the tube. The wound healed kindly; and I can truly assert, that of adults where the tube failed to carry off the water, that the wound might heal by the first intention, I have never seen a better recovery after lithotomy, notwithstanding the great size of the calculus.

Remarks on a new operation of Lithotomy in the Female.

Some years since I published a new method of operating for the removal of calculus from the female bladder. This operation was published in the *Medical Recorder* of Webster, together with some cases in which I had performed it. Soon after this publication, a physician of high respectability of Philadelphia, informed me that he had assisted Dr. Physick in performing this operation accord-

ing to my method, and that they were pleased with its simplicity, &c. When I was in Europe in the year 1830, I performed this operation on a dead subject, at the Hamburg Hospital, in the presence of several of the most distinguished surgeons in Europe, who expressed their approbation of its utility and simplicity. From that time till towards the close of the year 1839, I have not heard of this operation. But all I have read or seen, as well as my reflections on the subject lead me to believe, that it is preferable to lithontrity, since where the operation for removal of calculus from the female bladder is proper, as regards the constitutional powers, &c. it applies equally well to all cases. Whether the calculus be large, or there be a number present, or there be neuralgic diseases of the bladder, this operation can be performed with very little pain, without risk, and with the certainty of removing the calculous deposite, and never impair the function of the urethra, which so often leads to incontinence of urine in the female. Where the urethra or bladder are affected with neuralgic distress, the knife is infinitely less painful than the lithontriptor, as I myself have seen.

In support of these positions, I here offer for the "*Maryland Medical and Surgical Journal,*" the following case:—My attention was called to a young female of respectability, in December 1839, who had been suffering much for years from disease of the bladder, but who was obstinately opposed to an examination by the sound, as is common with delicate females. Her sufferings becoming so severe as to render her a complete invalid, and being more than nature could longer tolerate, she consented to the use of the sound, when a calculus was readily discovered.

On the 6th of December she submitted to the operation. In the presence, and with the assistance of Dr. McIlvain, and Dr. Haller, of York, Pa. I performed an operation for the removal of the stone, which had so long harassed the patient. The patient was placed with the nates on the edge of the bed, her feet upon two chairs—not wishing to subject her to the indelicate posture of affairs attending tying, as is practised in the operation on men. The patient thus placed, and a friend standing by on each side to support and steady her knees, I now placed myself on a low seat before her. A director somewhat larger than those in our pocket cases, and having four grooved sides, was passed into the urethra,

and so directed as to present one of its grooves directly upwards, and the next having an aspect directly to the left side of the patient. The stone having been first felt by the director, I now pressed the instrument slightly upwards, so that it might be applied pretty firmly to the urethra; then a small scalpel, having a short cutting edge, was pressed up towards the clitoris, till a wound was made of about three-fourths of an inch, and not so deep, since it is only necessary to cut clearly through the rim or mouth of the urethra. The knife was now placed in the groove on the left side, and an incision made similar to *that* upwards; the mouth of the urethra was thus sufficiently opened. Now the scalpel was again set in the left lateral groove, and steadily passed into the bladder. All this was apparently the work of a moment, and the forceps were found to enter with facility, and a calculus was speedily removed which I would estimate at about an ounce—it was irregularly oval. I can truly aver, that of all the operations in surgery involving risk, suffering and responsibility, and for overcoming a formidable disease, there is none more simple or safe. The only risk that can attend it would be in cutting too freely through the neck of the bladder, and thus letting the urine into the pelvis. This is easily avoided by an experienced hand. My friends who assisted (Drs. McIlvain and Haller) were much pleased with the success and facility with which this operation was performed.

No unpleasant symptoms followed, and I was assured by the patient after recovery, that she could retain her urine on the third day; that she then rose and passed it naturally; and, on the eighth day she left her bed. The truth is, when this operation is well performed, the wound heals by the first intention, and therefore, there can be no risk of incontinence of urine, nor can there be much pain after the operation. Doctor Haller having attended to the after-treatment, corroborated her statements with regard to occurrences after the operation. So much is woman prone to incontinence of urine after injuries, or any debilitating influence exerted upon the urethra, that even the operation of lithontrity will not be exempt from this risk at all times; and besides, to keep a female im the unpleasant posture necessary for the use of the lithontriptor, so long as necessary for removing a large calculus, is exceedingly annoying to her delicacy; by the present operation the exposure is almost momentary; it is but little more painful,

and equally safe in its performance; and even more so in the result, taking all things into view. Of all this the profession will judge for themselves,—my own experience, freed, I trust, from prejudice, is in favor of the new method. Fortunately, this operation is rarely necessary in the female, but who does not know that heretofore many women have been sent out laboring under incontinence after lithotomy? nor will lithontrity, however valuable, ever supersede the use of the knife.

Case in which an attempt was made to re-unite a fragment of a finger, which had been cut off accidentally.

The medical reader is aware that a good many cases have been reported, of fingers and toes that had been excised, and afterward restored to place and life. Some of them appear to be well authenticated, but I need not particularize: my object at present is to report a case which, though unsuccessful in its termination, serves, nevertheless, to encourage us to hope for success sometimes.

November 11th, 1839, I was called on to decide whether it was safe, and worthy of trial, to replace a piece of the right fore-finger that had been chopped off. The patient was an apprentice boy who lost a part of his finger at a fountain where he was engaged with apparatus belonging to a fire engine; the fragment was left lying in the cool water of the hydrant. It had been separated about nine o'clock at night, and it was not found till between three and four in the afternoon of the next day—say about twenty hours. The dividing instrument had passed through the finger at the root of the nail, and slanted downwards, so as to come out opposite the first joint, thus forming a slanting surface. The piece looked perfectly sound, but was pale, and apparently bloodless, owing probably to its lying all night in the water. I soaked it for several minutes in warm water, heated as much as I could bear with my fingers without pain; then taking delicate scissors that were very sharp, I clipped off every particle of dirt, of which a good deal adhered to the face of the wound, and also all loose or projecting portions or points of membranes, vessels, and fibres of all kinds. The same operation was performed on the

living stump, but done with so much delicacy as to give but little pain; this part was now also soaked in warm water for several minutes. Next both surfaces were dried as perfectly as possible, by pressing a soft silk handkerchief against the raw surfaces; then the parts were cóaptated as neatly as possible, and retained in place by a number of very narrow strips of good adhesive plaster, spread on fine muslin. Satisfied that I had adjusted the parts with accuracy, and that the plasters would sustain them in place, I lapped the finger in many folds of soft old muslin, and desired him to remain in the warm stove room. From this time the pain and soreness of the finger diminished, so that he scarcely complained at all of suffering.

On the 15th, fourth day after the first dressing, I opened the wound, and although but little union had taken place, still the parts were well in place, and he declared when the end of the finger was touched with the point of a needle, that there was feeling in the part; and there were no traces of decay or suppuration. I washed off the parts with warm water, and with as much delicacy as possible, reapplied the strips, and directed the parts to be kept constantly wet, by means of frequently wetting the dressings with warm whiskey, without taking them off.

Sixth day I dressed again, and found the union much more extended, running along on one side of the finger, and still more on the under side and across the finger; and so far as any attachment was seen, the skin of the smaller fragment was white, and obviously, as we all thought, having life in it. The finger was dressed with narrow strips of muslin, and kept wet with warm whiskey.

Eighth day the wound was opened again—much as at the last dressing—continue the warm whiskey—the dressing renewed, and continuance of the hot whiskey directed.

Tenth day, I learned that he had been yesterday looking at a parade, the day being very cold. Find the finger quite dry, the whiskey having been neglected. Some traces of suppuration, by which the union has been somewhat disturbed. The skin on the end of the finger presents a vesicle, which is slightly ruptured, and a little bloody discharge has taken place—this seems indicative of the presence of blood, in the end of the finger. The strips and other dressings were applied with much care, and the necessity of more caution on the part of patient strongly pointed out.

On the eleventh day I find some improvement; the parts adhere more firmly, and there is less suppuration. It has been carefully warmed, moistened, and stimulated by the whiskey. I have strong hopes of success, and the family, who saw the finger, have no longer any doubt of the restoration of it. I omitted to mention in place, that the bone was cut straight off, and without spiculæ. This afforded the opportunity of applying the separated part with firmness, and aided in the favorable action of the strips of adhesive plaster, without pushing the end so as to shorten the finger.

This was the opinion formed at the time, as appears in my note book, but subsequent reflection has induced me to believe, that however correct this opinion may be in a mechanical view of the subject, I now think that in a similar case the chance of success would be greater if we were to dissect the bone from the end of the finger. The bone, under such circumstances, will probably act as an extraneous body, because the vessels, though they may take up blood at first by a power little different from the imbibition of blood by endosmose, cannot sustain the more insensible and dense bone. At all events, if I were to try another such experiment, I would surround the first dressing with a coating of plaister of Paris, or whiting and glue, by which a firm case can be formed, and which should be left on for at least a week; and during all this time, in cool weather, the patient should be kept warm, and the affected hand kept surrounded with artificial heat.

Upon the whole, I think this case is rather encouraging than otherwise, for though we failed in our object, yet it appears that considerable adhesion had taken place, and remained promising on the eleventh day. Three or four days after this period, observing the dressings stained slightly with blood, I removed them and found the *end* had sphacelated, and was loose; in a few days the stump was healed. I may mention here, that I have succeeded in some cases of wounds of the fingers and toes which were so nearly cut off, that one could hardly attribute any considerable influence to the feeble supply of blood, yet there may be more in these slender connections than seems fairly inferable from them. I think it is our duty to use efforts where we are called within a few hours of such accidents, even when the member is off, and, I think a union appearing on the eleventh day, where the fragment had lain twenty hours in cold water, is encouraging.

Case of severe internal Hemorrhoids treated by a new method of operation.

A GENTLEMAN from a distant county in this state, applied to me for advice, &c. in October 1838. He has been affected for years by diarrhœa, and suffering the usual symptoms which characterize dyspepsy. Has also had a fistula in ano for a very considerable length of time; also severe piles, both internal and external; these are apt to bleed, sometimes to an amount which seriously debilitates him. Has not been able to digest animal food for some time, and has been obliged to abstain from Indian bread, to which he had been accustomed more or less.

In the latter part of the summer he had a severe and dangerous attack of bilious fever. He has been up again about a month—has been able to walk a little at home, but he now walks feebly, and very soon becomes tired. On his way to Baltimore he caught a cold, and has had chills every evening since, followed by some fever. I directed a dose of ordinary cathartic pills, which were followed by two seidlitz powders—these agents procured free operations. The next day one grain doses of quinine were given every two hours. Under this treatment he improved speedily, and in a day or two he walked across the street on business, and was considerably fatigued though he returned immediately. His appetite is now tolerably good, but he is afraid to eat animal food.

The general health being thus improved, I was now called to examine into his hemorrhoidal disease. I find considerable tumors all around the anus, with portions of the lining membrane of the rectum protruded, of a dark livid color, and very vascular; also a fistulous opening through one of the tumors, but terminating just within the sphincter muscle. Seeing that my patient was very weak, the parts very vascular, and the disease extending all around the anus, I was fearful that excision of the parts by the knife might be imminently dangerous. In these circumstances, I advised and practised the following operation, with the assistance of Prof. DUNBAR.

Two suture needles armed with double threads, were passed through separately, so as to cross at right angles, and intended for keeping down the protruded portion of the vascular and diseased lining of the rectum, which had been well protruded, by the

patient's straining over the close stool. The threads were of great advantage in holding the parts firmly, still I found it necessary to add the use of a tenaculum, hooked into the upper part of the mass. Now drawing the parts well down, by means of the threads and tenaculum, I passed a very delicate scalpel entirely around the whole mass, carrying the incision quite through the true skin, but no further. Then a strong waxed thread of flax was carried round in the course of the incision, and tied as firmly as possible, so as to strangulate the vessels of the inner tumors, and lining of the rectum. The patient bore the operation with great firmness, but complained of severe pain in tightning the ligature. Two ligatures were applied as tight as I could draw them in the same tract. There was not one ounce of blood lost. All the ligatures were left hanging out with the ends uncut. A soft compress was applied, which was secured in place by simply putting up his drawers. He did not show any prostration, nor was the pulse flurried. Indeed, he continued to converse with us during the operation.

Three hours after the operation the pulse is full, and his color and spirits good, and the pain from the ligatures has nearly subsided. Desired him to avoid all food, and even drink, as long as possible, as I fear any action on his bowels, which must not be acted on, since his lower bowel is closed by ligature. He took a tea spoonful of laudanum before the operation, and one immediately afterwards, with intent to render his bowels inactive. Some hours afterwards he complained of tenesmus, and nausea. This was relieved by taking a little peppermint. At bed-time I found that there had been an oozing of blood, to the amount perhaps of an ounce; has slept some, and has no pain nor fever.

Day after the operation has some fever, but he rested well last night; there is still a very slight oozing of blood. Pulse hard, face flushed, not much heat of skin. The oozing is from one side of the tumor, where the parts are quite livid and apparently dead; on the other side there is still some vitality. I applied another ligature with all possible tightness, and with almost no pain. Directed a little gruel, and if the bowels incline to movement, to take thirty drops of laudanum.

The second day—there has been a little oozing from the strangulated vessels, not amounting in all to two ounces. In the even-

ing I find the parts more disposed to bleed, and the tumors have nearly disappeared, seeming to have been dissolved away. I applied powdered galls freely around the parts—I find the ligature still hanging to the shreds, which remain attached to the ligatures. A compress was laid on, and bound firmly by means of a T bandage. His bowels being inclined to act, I directed a dose of laudanum, and to be repeated if necessary. Has taken no food except a tea-cupful of gruel.

On the morning of the third day I learned that the patient had rested well, and there has been no bleeding—the galls have formed a crust over the affected parts. There is nothing remaining of the tumors, except a small portion of skin, which keeps on the ligatures. He is entirely free from pain, and has improved much in his appearance. Avoid solids, keep quiet, and take a little tea. He suffered a slight inconvenience last night from the confined state of his bowels; this was relieved by a little laudanum.

Fourth day, every way better; no fever or pain, neither has there been any bleeding. His bowels are still confined, so that he has taken no food; drank a cup of tea, and kept his bowels quiet with a little laudanum.

Fifth day—there has been a little bleeding, and there are still a few shred-like pieces of skinny substance. I clipped these all off by a single stroke of scissors; they were so deadened as to give him no pain in the cutting, neither was there any bleeding.

On the sixth day I was informed that he had two passages from his bowels yesterday. In the evening of this day he got out of bed, and had a chill which was followed by some fever, and a good deal of pain in the parts affected. The surface of the wound is covered this morning with pus. There are some small portions of sloughing membrane within the anus. Dressed the wound with mild digestive ointment, and prescribed a tonic mixture, &c. He has partaken sparingly of light food, since the ligatures have come off the rectum.

Seventh day doing well, ate a little chicken. The parts look well this morning, except that some portions of sloughy membrane still adhere. Introduced lunar caustic slightly into the anus.

Eighth day nothing remarkable; bowels but slightly opened yesterday; appetite better. Considerable portions of the deadened membrane came away; repeated the caustic. In the course of the

day there was a discharge of two or three ounces of grumous blood, with some straining. Directed fifteen grains of rhubarb, which acted two or three times; free from bleeding, and without pain.

From this time nothing remarkable occurred. The parts healed up kindly; the health improved, and in about a week from this time my patient returned home greatly improved in all respects.

Since the foregoing case, I had occasion to perform an operation under very similar circumstances, and with a similar result; and I have been led to conclude, from the success which attended these cases, and the comparative exemption of pain and danger in similar cases, that this method of procedure is highly important. The method of cutting through the true skin and cellular membrane, which can be done without danger and with little pain, compared to that occasioned by a ligature on the skin, is neat, safe, and equally effectual with any other method which has been practised. The knife is dangerous wherever the patient is reduced, and the parts very vascular, as is mostly the case; nevertheless, in ordinary external tumors, I strike them off when necessary, with the knife.

RUPTURE OF THE UTERUS.

By Dr. Albert G. Welch, *of Annapolis, Md.*

Messrs Editors:

I send to you the following case for your valuable Journal. I would have communicated it earlier, but other engagements prevented me. I shall merely report the facts of the case, without making a comment on it.

On the 23d of October, 1838, at midnight, I received a summons from Mr. B—— to visit his servant woman, about five miles in the country,—"suffering," as the note stated, "with a violent cramp colic." I went immediately, and upon an examination of the case, found that it *was not* "cramp colic" under which she was laboring; nor could I make out to my satisfaction her actual condition. The pains in her stomach recurring at short intervals and lasting about a minute, accompanied with a severe "bearing down," I thought the case might be an incipient miscarriage; but upon enquiry, the servants who were in waiting upon her told me that she was not in the "family way," but that she had not been "regular" for the last two months. On placing my hand on the abdomen over the region of the uterus, I felt a large rounded tumor, which I supposed was the bladder, greatly distended. Not having a proper instrument with me for evacuating that viscus, I had her placed in a warm bath, and directed her—℞ calomel, x. grs.; G. opii., i. gr.; these means not succeeding in emptying the bladder, and her pulse being too small and weak to practice bleeding, I made a catheter out of a goose-quill, and succeeded in introducing it; but to my great disappointment, not over an ounce of urine escaped. Finding my patient gradually growing worse, without knowing what was the nature of her case, I prescribed an enema, but without benefit. I again insisted that she was in the family way, and that she was about to miscarry; but the patient herself confidently asserted that she was not. An hour having elapsed since the first dose of opium, I gave her Tinct. opii. gtts. L. and directed a large poultice to be applied to the abdomen—mustard plasters to the ankles, and hot bricks to the feet. During the whole time she complained of nothing but a pain in her sto-

mach, which she referred to the umbilical region. I was now induced to believe that it might be an obstruction in the cystic duct by a calculus, and had almost made up my mind to treat the case as one of obstruction, but I found my patient was sinking rapidly, and that in a few minutes more she would be relieved by death. She died before morning. Being entirely at a loss as to the cause and nature of her case, I applied to Mr. B—— for permission to make a post mortem examination, which was readily granted. I returned home, and after breakfast, got my very intelligent young friend, Mr. (now Dr. J. H. Boyle) to accompany me, and assist at the post mortem.

Autopsy five hours after death. Upon opening the abdomen, a tremendous flow of *blood* took place—I suppose there was near a gallon and a half caught in a tub beneath the table. As soon as the blood was done flowing, and the abdominal cavity washed, we proceeded with our examination. The small intestines were healthy; the large intestines presented exteriorly (they were not examined in their interior,) a smooth and shining yellowish white appearance, and very much contracted and thickened; the liver was not examined; the bladder was healthy. Uterus—Here the cause of death was perfectly obvious. This organ was ruptured, and an embryo of about two months had escaped into the cavity of the abdomen—the placenta remaining attached. The uterus was extensively diseased; the whole of the left fundus down to the neck of the organ was in a state of ulceration—it was through this part that the embryo escaped; the ovaries and the uterine appendages were all in a normal condition.

It is somewhat surprising that a disease of so dangerous a character, affecting an organ, performing in itself important functions, and holding in the system an extensive sway by its sympathies and relations, should never have manifested its existence by any phenomena whatever. Up to the night when I was sent for, she had never complained even of feeling unwell. That night she ate her supper with an excellent appetite and retired, as she thought and felt, in perfect health. Most truly is it that "in the midst of life we are in death."

I have preserved the uterus and embryo which I purpose sending to you, to be deposited in the Anatomical Museum of the University of Maryland.

Annapolis, June 12th, 1840.

INTERESTING OBSTETRICAL CASE.

By John C. Orrick, *M.D. of Baltimore Co. Md.*

On Tuesday evening, November 25th, 1839, I was called to attend Mrs. S——, of Hereford-town, in her first accouchement. I found my patient laboring under preparatory pains, which continued gradually to increase in strength and frequency. At eight o'clock the next morning expulsive pains existed, with but little intermission, and finding the parts at ten o'clock well dilated, I ruptured the membrane, and at twelve, M. my patient was delivered of a female child rather above the ordinary size. When the child was disposed of, I removed the placenta without difficulty from the vagina. I remained with my patient three hours, and then left her in a comfortable condition. The labor (which was natural, except a slight deviation of the head in its passage, and which was easily corrected,) was, however, exceedingly severe—the pains, both in constancy and severity, surpassing those of any case that had occurred in my practice of many years.

I had left my patient but a few minutes when I was again summoned to her, and found her complaining of excrutiating pain extending from the rectum up to the lymphisis pubis, and tossing herself from side to side, unable to maintain a quiet position for a moment. An examination made known the existence of an oblong tumor occupying the right labium, extending upwards along the right side of the vagina as far as the finger could reach. Presuming it to be a case of pudendal hernia, and the suffering of my patient being intense, I solicited consultation; and on the morning of Thursday the 27th, was met by Dr. J. R. Moore, a gentleman of deservedly high reputation in this county as an accoucheur. Dr. M. agreeing with me in opinion, and being equally unable with myself to reduce the tumor by the taxis, and the evaporating lotions, and other means usually resorted to in cases of protrusion having failed of effect, we determined on resorting to operation; and, with that view, sent to Baltimore for a surgeon. The services of Dr. H. W. Baxley were secured, who, having received a

history of the case, and an account of the measures of relief resorted to, and having himself failed in returning the tumor by manipulation, agreed with us as to the necessity of operation—remarking, however, at the same time, that however just the inference of abdominal protrusion from existing symptoms, that it was by no means uncomplicated. The size of the tumor could be diminished somewhat by the taxis, although it could not be completely removed, and the touch, particularly of the external portion of the tumor, received the resistance of a jellied mass. At this time the anterior face of the tumor was gangrenous, to the extent of about three inches long by two wide, surrounding which the skin was highly inflamed over the whole extent of the swelling, resembling somewhat in shape, but considerably larger than a Florence flask. The general condition of the patient was one of extreme prostration; a rapid, thread pulse; cold and relaxed skin; hiccup, and other evidences of approaching dissolution. The patient having been informed of her critical condition, and the uncertainty of even an operation affording her relief, determined to take the chances of the latter; when Dr. Baxley made an incision through the skin along the anterior face of the tumor, to the extent of from four to five inches; this exposed a membranous sac, which was cautiously opened upon a director, when a vast quantity of blood partly coagulated, partly grumous, presented itself. This was turned out with the hand to the amount of about one pint and a half, and the finger being passed several inches along the neck of the sac, recognised at its mouth what was supposed to be a plug of omentum, a little larger in size than the first joint of the thumb; this was displaced by careful pressure, returning with an audible suction noise, and the patient expressed herself relieved.

The subsequent treatment consisted of antiseptic poultices, until the slough had separated, and a healthy granulating surface presented itself. A sero-sanguinous discharge being superseded by genuine pus, when demulcent poultices, followed by simple cerate, were applied, and under which the wound cicatrized. The patient was sustained by mineral tonics, and a prudently liberal diet, and in thirty days resumed her domestic duties. Her health continues good up to this date.

With the record of this, to me singular case, I venture the following pathological opinion:—Premising that the labor was one

of great severity, and regarding the conjoint presence of a small knuckle of omentum, and a large quantity of blood in the labia pudendum, and extending along the right wall of the vagina, is it not a just conclusion that there was an incipient pudendal hernia, with rupture of some of that remarkable plexus of veins situated around the neck of the bladder, and along the sides of the vagina?

June 1*st*, 1840.

CONTRIBUTIONS TO PATHOLOGY.

By William Power, *M.D. of Baltimore.*

The following cases selected from a mass, of which the histories have been taken during a long residence in public hospitals, have no other bond of connexion as a series, than that of their being all lesions of the vascular system, and each remarkable for its rarity. Cases of this kind, though they may be destitute of any immediate practical interest, since from their singularity they are seldom encountered, and when met with, puzzle and confound the observer, who only arrives at a just diagnosis in the dissecting room—still appear to me as deserving a place in the records of the science. Our inability to detect and pronounce with certainty, from the symptoms during life, upon the existence of certain lesions, should not prevent us from carefully observing and recording every fact that may eventually be useful in elucidating points of semeiology or pathology; nor should we consider those labors lost which barely place such facts before us, though they afford no clue by whose aid we may hope to arrive at conclusions to direct our practice. It is not from isolated cases that any general law of utility is to be deduced. For this purpose a number of similar cases is necessary: and as no one man even in the most extended sphere of practice, can meet with a sufficient number of these extraordinary aberrations from the normal condition, it becomes the duty of each to contribute the mite that accident may throw in his way, to the pages of our journals: thus one day all those of a like kind may be collected, and from a comparison of the symptoms and changes in all, principles may be arrived at, and light thrown upon those laws of nature, which however eccentric they may appear to our limited knowledge, will in the end be found to march with unerring certainty and order, to the production of certain results.

Case I.—*Apoplexy, Paralysis—ancient cicatrices, Aneurism of the Basilar artery.*

Phelps, a free negro, æt. about thirty, a laborer, of stout frame, entered the Baltimore Alms House, 12th May, 1838. His habits for a long time had been very intemperate; he lived in misery, subjected to every kind of hardship. He enjoyed, however, very good health, until a week before his admission, when, while intoxicated, he fell down in a fit. He was unable to give any satisfactory account of his attack, but when brought into the hospital his right side was partially paralysed; able to drag up his leg and to perform some imperfect movements with his arm—the sensibility nearly perfect. Tongue a little deviated, clean; appetite good; bowels regular; complained of no local pain; pulse a little tense; skin natural; articulation indistinct. He was bled, blistered behind the neck, purged, and after remaining four or five weeks in the hospital, was discharged, limping somewhat in his walk, his arms almost equally strong. He remained about the institution, dull and stupid, doing nothing.

After a lapse of three months he again entered the hospital with an acute enteritis, for which he underwent the ordinary treatment; during his convalescence from this attack, he was found one morning at the usual hour of visit, with a strong, tense pulse, intensely hot skin, dry tongue; speech so embarrassed that he could give no account of his sensations; his limbs were completely deprived of all voluntary motion, but occasionally bent and stiff, at the elbows, knees, and wrists, requiring considerable force to overcome the contraction; fæces and urine passed involuntarily. Cups and blisters were applied to the neck; purgatives were used, and a rigid diet insisted upon. He became excessively emaciated and prostrated; sloughs made their appearance on his sacrum and his right ear; his pulse became thready; his lips and tongue covered with sordes. To our surprise these symptoms abated, the sloughs cicatrized, and his general health improved, the paralysis continuing unabated. He continued in this state for two months, scarcely able to articulate the simplest monosyllable; his excretions involuntary; unable to move or assist himself, he lay in his bed a pitiable object, gradually emaciating until a new attack of enteritis supervening, carried him off some time in January.

Autopsy. When the cranium and dura-mater were removed, the membranes of the brain presented nothing remarkable, save a little opalescence and firmness of the arachnoid not very marked. The pia-mater not more injected than usual; a small quantity of serum under the arachnoid and between the convolutions. The substance of the brain firm; its two portions distinct in color; when cut into presenting a few small bloody points. Lateral ventricles containing each a half ounce of clear serum; a few small hydatiform bodies in the choroid plexus. The left optic thalamus presented at its central part, two oblong cavities half an inch in length by three lines in diameter, distant from each other about half an inch; empty, their walls of a dirty yellow hue, soft and not covered by any trace of membrane; the yellow color and softness not extending more than two-thirds of a line into the substance of the brain. The right optic thalamus, about its centre, presented another cavity, large enough to contain a cherry-stone, similar in all respects to those just described. The pons varolii opened through its centre displayed a fourth cavity, rather smaller than that in the right thalamus, but exactly similar in all other respects. At the point of junction of the two vertebral arteries forming the basilar, there existed an aneurismal dilatation, circular in form, half an inch in diameter, its walls much thicker than the coats of the artery, either above or below; this thickening was caused by the effusion of a cartilaginous layer under the lining membrane. This deposite was of a whitish yellow color, thick as a sheet of drawing paper, preventing the walls of the sac from collapsing when incised. The sac contained dark colored fluid blood, but no clots. Along the course of the basilar artery were several small patches of a similar deposition, in the thickness of the walls of the vessel.

This aneurism of the basilar artery is a singular instance of dilatation occurring in a vessel so protected in a bony cavity, that it could not be exposed to any remarkable strain or impulse. How long it had existed we have no means of knowing; and the more recent lesions within the cranium, increasing the want of intelligence natural to the patient, prevented our learning any symptoms which might have revealed its presence. Dr. Stephen, a resident student at the Alms House, had seen him some years previously at Annapolis, and informed me that he then had great

difficulty of enunciation, and when I first saw him he squinted with the right eye, which however was defective in other respects. Are these two peculiarities to be referred to the pressure of the aneurismal dilatation on the origins of the sixth and ninth pairs of nerves, or were they congenital? The alteration of the coats of the vessel at the dilated point, and the patches similar in appearance along the trunk of the basilar artery, seemed undergoing a change from cartilaginous to ossific degeneration. They resembled similar plaques that I have not unfrequently met with, in the arteries about the base of the brain, in very old people, whose arteries were ossified in other parts of the body. Had this tendency to disease in the vessels of the brain any thing to do with the production of the apoplexy, or were both the result of his habitual indulgence in intoxicating stimulants? As to the other lesions observed, they are interesting, inasmuch as they explain satisfactorily many of the symptoms presented by this patient. One, or probably both of the cavities in the left optic thalamus, were the remains of that effusion which took place just before he entered the hospital: those in the right thalamus and the pons varolii, marked the seat of the second, which occurred during his convalescence from the enteritis; though the appearances in all were so similar, that from a bare inspection, one could not be pronounced more recent than another. The history of the case however, the complete paralysis after the second attack, and the known influence of effusions in the pons varolii, justify the conclusion.

Case II.—*Aneurism of the Aorta—rupture and separation of the coats of the vessel.*

Mary Hambleton, æt. 92, entered the Alms House on the 15th of February, 1838. Feeble, emaciated, wrinkled, bent double, in short bearing all the marks of extreme old age. She complained of nothing except some wandering pains in the back and limbs, and a slight cough. Intelligence feeble, senses obtuse, expression natural, no anxiety, respiration normal, tongue clean and moist, appetite good, bowels open once in two days, abdomen well formed, skin of a natural temperature—a little dry and rough; chest narrow and elongated, clear when percussed, except over the præcordial region, where it was dull for the space of three

inches square; respiration vesicular, with a little ronchus behind; impulse of the heart unequal—very strong every third, fourth or fifth beat, though stronger than ordinary during the intermediate ones. *Fremissement cataire* when the hand was applied over this region. The ear applied detected a *bruit de soufflet* during the moderate impulses of the heart, which was converted into a loud, *bruit de rape*, or *scie* at the violent one. The *bruit de soufflet* was heard all over the chest, more distinctly however, half an inch above and to the inside of the left mamma than elsewhere. The pulse, like the heart, regular as to rhythm, but stronger every third, fourth or fifth beat. No ædema of the extremities, decubitus dorsal; sleeps well and soundly at night; says she has no dyspnœa, and as she has been too infirm to make any bodily exertion for a long time past, this is probably true.

The patient was pronounced to have hypertrophy of the heart with disease of the valves; and as she appeared not to suffer, was left without any treatment as an inmate of the chronic hospital. During the 16th and 17th no change: on the morning of the 18th she took her breakfast with appetite, and shortly afterwards fell into what the nurse regarded as a tranquil sleep: when her next meal was carried to her she was found dead.

Autopsy, twenty-six hours after death. When the sternum was removed, a large tumor was seen, of a dark livid color, extending upwards from the third rib, and loosing itself under the skin of the anterior part of the neck. The skin with the muscles were dissected away down to the sheaths of the carotids: it then became evident that the tumor was formed by an effusion of blood under the membranes and sheath of the aorta extending along all its divisions in the sheaths of the vessels, surrounding the subclavians as far as the axillæ, and the carotids beyond their division. The blood was dark, almost black; semi-coagulated in some places, and perfectly fluid in others, especially where collected in large quantity. The carotids and jugular veins were compressed by it, as well as the par-vagum which was completely surrounded. The heart was carefully removed: the cellular tissue engorged with blood, surrounding the aorta, taken away, as well as that around the pulmonary artery, and the descending cava. The auricles were found very much distended by dark fluid blood. The left ventricle laid open, presented walls an inch in thickness,

without any increase of the size of its cavity. The auriculo-ventricular valves were opaque, of a whitish yellow color, stiff, more than a line in thickness at their free extremity, and a semicircle of osseous matter, thick as a goose-quill around their bases. The aortic valves retained a certain degree of suppleness, but thickened, with cartilaginous concretions as large as hemp-seed on their free edges, and osseous concretions along their bases. The aorta two inches and three-fourths across at its orifice; nearly five at its arch; of a yellow color, rough and unequal, studded with calcareous deposites, some smooth, and on a level with its lining membrane, others rough, pointed, and projecting into its cavity: its lining membrane in great measure destroyed, only existing where there were no concretions, these occupying more than one-half its surface. About an inch from the aortic valves, and on the posterior surface of the vessel, was a small circular perforation, the third of an inch in diameter, extending through the inner and middle tunics only: its edges rough, a little fringed, looking as if one of the calcareous scales already spoken of had been torn up by the passage of the blood. This opening communicated with an anfractuous cavity caused by the separation of the two inner coats of the aorta from the outer; extending in some places entirely around the vessel, in others the fibrous and nervous coats were still adherent. This singular dissection occupied the whole extent of the vessel from the top of the arch, down to its origin from the ventricle; in one or two points it reached under the coats of the left auricle, from whence the effused blood appeared to have gained the cellular sheath of the vessels and followed their course. The blood contained in this novel sac was perfectly fluid. The fibrous coat of the aorta was thicker than usual and very brittle throughout its whole extent; it was easily separable from the nervous coat in those parts where the disease did not extend. The lungs were crepitant, rosy, mottled with black lines and spots. The other viscera were not examined.

The only case that I have found recorded at all similar to the one of which the history is given above, is detailed in the third edition of Laennec's work on Auscultation, observation LIV. In that case there was a similar perforation, and almost complete dissection of the coats of the aorta by the effused blood, extending from the arch to the primitive iliacs; accompanied by the same

rudiments of ossific incrustation, and presenting the same facility of separation of the inner and fibrous coats from the cellular. This latter peculiarity depended probably in both instances upon the extreme age of the patients. I have seen the same disposition manifested to a greater or less degree in the aorta of many old persons, where the coats were thickened, yellow, and opaque, commencing to show traces of cartilaginous degeneration. The two inner coats were very brittle in both cases; the superior tenacity of the cellular coat permitting this sudden and violent distension to take place without rupture. Laennec regards his case not only as something perfectly unique in the annals of pathology, but as highly important in throwing light upon the formation of false aneurism of the aorta: he conceives that we have there exemplified upon a large scale and suddenly, the same process which, marching with less rapid strides, produces many of those dilatations of this vessel, so distressing in their symptoms and so fatal to life. From the fluidity of the blood contained in this singular sac, and in fact from every thing else observed in the case I have recorded, the rupture must have immediately preceded her death; it is impossible to suppose that life could have been sustained for any time, with such a lesion existing. Her death was sudden, and from the nurse's supposition that she had gone to sleep, must have been without pain: the important parts compressed by the effusion sufficiently explain this.

Case III.—*Diffused aneurism of the internal iliac opening into the vagina and abdomen.*

Ruth Clark, æt. thirty-two, entered the Alms House September 25, 1838. For the last eight years mistress of a house of ill-fame, she indulged in all the vices and excesses common to women of her class. Her constitution naturally robust, she has always enjoyed good health, never suffered from any attack of illness, and never had a venereal disease until the present one, the first symptoms of which she discovered about two weeks before her admission. When examined, several large ulcerations were found on separating the labiæ; one on the right side, nearly an inch in diameter, half way between the urethra and fourchette; another, the size of which could not be so well determined, upon the left

side near the fourchette: the labia of this side a little hypertrophied and indurated. She was put upon the usual anti-syphilitic treatment of the house, and the ulcer of the right side appeared to cicatrize very kindly.

About five weeks after her admission, she had during the night a profuse hæmorrhage from the vagina, supposed to have originated from a phagedenic ulcer. This hæmorrhage amounted to nearly a quart, but was arrested promptly and effectually by the introduction of a sponge into the vagina. The rest of the night passed very quietly, and in the morning when the sponge, which by its distending the parts gave rise to some pain, was removed, no farther traces of the hæmorrhage were visible. Her general health failed rapidly from this time: she became feeble, anœmic and emaciated; appetite bad, skin warm, pulse varying from ninety to one hundred and ten. She complained of great tenderness in the vagina, and a dull pain in the left hip over the sciatic notch. The ulcerations did not appear to increase. *Ext. Cicut grs.* v. *ter in die. Infus. cham. et columb.*

After continuing for three weeks much in the same condition, the hæmorrhage again occurred at night without any evident cause, and was arrested as before by the application of the sponge, the pressure being applied for half an inch beyond the nympha. She lost on this occasion eighteen or twenty ounces of blood, and when the sponge was removed in the morning, there were no traces of a coagulum in the vagina. Examined carefully—the ulcer on the right side was perfectly cicatrized; that on the left was as large as a shilling, superficial, its edge nearly on a level with the mucous membrane, its base covered with a lardaceous coat in points, but disposed to granulate. This ulcer extended half an inch beyond the nymphæ; behind this, the vagina appeared perfectly healthy, the neck of the womb normal: we could not discover the precise point from which the hæmorrhage came, but it evidently had some connexion with the ulcerated part. The *ac. sulph. arom.* was administered internally, and compresses moistened with *Liq. sub. acet. plumb.* kept constantly on the ulcer. Two days afterwards, while the patient was at stool, a third hæmorrhage took place, which was arrested by the same means as the others, without much loss of blood. The sponge was removed a few minutes after it was applied, as it caused pain;

the bleeding had entirely ceased and was not renewed. She complained now more than heretofore, of pain over the sciatic notch, and said she was always aware that a hæmorrhage was about to take place, from its increasing in intensity immediately before the discharge of blood. This pain was now constant, extending up to the loins, and was the symptom of which she complained the most. The left hip was larger than the right; the left leg slightly ædematous and numbed—decubitus always on the right side. She was much weakened by these repeated hæmorrhages, her appetite entirely failed; fomentations were applied over the seat of pain, anodyne and emollient enemata, gentle tonics and cordials administered without benefit. On the second day after the last attack, while sitting up in bed to have her clothing changed, she suddenly fainted, recovered with some difficulty, sank rapidly afterwards, and died in the course of a few hours.

Autopsy, twenty-two hours after death. Emaciation very great, waxy pallor of the skin, rigidity marked. An ulceration, an inch by three-fourths of an inch in diameter, superficial, occupied the left side of the vagina, starting from the centre of the nympha; a few lines in front of this ulceration, was a small opening of the size of a crow quill, through the healthy membrane; its orifice closed by a clot of blood: a probe introduced into this opening passed outwards and downwards into some large cavity or sac. The anterior wall of the abdomen was now removed, and the bones of the pubes sawed through and carefully dissected from the vagina and bladder. Clots of blood were found on the right side of the abdomen, extending from the diaphragm to the cavity of the pelvis, and between the circumvolutions of the intestines, amounting to from twelve to fifteen ounces: the peritoneum apparently healthy, no injection, no false membranes. The uterus was driven over to the right side, by a rounded tumor of the size of a goose egg, contained in, or rather covered by the folds of the broad ligament of the left side; just at its origin from the uterus, and where it is confounded with the round ligament, there was an opening three lines in diameter, plugged up with clotted blood: from this point the effusion into the abdomen had taken place. The tumor laid open, contained a mass nearly as large as itself of fibrinous concretion, surrounded by semi-coagulated blood with pedicles

extending downwards, and reaching to the sciatic notch. When these were removed the sac was found to have been formed by a diffused aneurism, caused by a rupture of the internal iliac artery, an inch and a half from its origin from the common iliac; raising up a portion of the peritoneum and separating the two folds forming the broad ligament of the uterus. The cellular and other tissues forming its lower walls were disorganised by the infiltrated blood. The sciatic nerve at its exit from the pelvis was exposed in the bottom of the sac, its filaments separated from one another by the blood infarcted into their interstitial cellular tissue. One little sinus or prolongation of the sac, extended downwards and forwards into the external parts, within half an inch or less of their surface; and at the thinest point there was a funnel shaped perforation, its apex corresponding with the opening in the vagina.

During the life of this patient the existence of an aneurism was not suspected; the pains in the hip and loins were never sufficiently severe to attract much attention, and were supposed to be neuralgic or rheumatic, a supposition which her cachectic condition and previous mode of life sufficiently warranted. She never noticed a tumor in the lower part of the abdomen; nor in the several examinations we made was any discovered. The repeated loss of blood from the vagina was exceedingly puzzling, as we could not discover the exact point from which it proceeded; at first it was attributed to a phagedenic ulcer, which was supposed to have opened a small vessel, but subsequent examination convinced us that this could not be the case, as no sore except a very superficial one, and that in full process of cicatrization, existed. That it did not proceed from the uterus was evident, both from inspection, and from the facility with which it was arrested by the introduction of the sponge: nor was any light thrown upon the case until the body was examined. The clots in the abdomen proceeded from the rupture in the broad ligament, which occurred the morning of her death, and was probably caused by the effort the patient made in rising: it was to this internal hæmorrhage that she succumbed. Aneurisms of the internal iliac are not very rare, and though obscure, are not beyond our means of diagnosis, but one opening into the anterior part of the vagina is something novel, and calculated to mislead a more experienced pathologist than ourselves.

Case IV.—*Enteritis—Varicose veins of the Æsophagus.*

William Tully, a negro, æt. fifty, of robust frame, very intemperate in his habits, and deficient in intelligence, entered the hospital October 3d, 1838, complaining of what he called a dysentery, for which he was bled and prescribed for by the resident student. On the morning of the 4th, when I first saw him, he returned very unsatisfactory answers to the questions addressed to him; said his bowels had been bad for the last six weeks, twelve or fourteen stools daily with griping and straining; could not describe the appearance of the passages; was much weakened by them, particularly for the last two days. His appearance did not indicate much suffering; great giddiness of the head; lypothymia and spasm when he went to stool this morning; tongue coated brown, but moist; appetite good, some thirst; abdomen tympanitic, no where painful on pressure; skin warm, but moist; pulse full and strong, ninety-eight. *Ol. Ricin.* ʒ i. *Tr. opii. gtts.* xl. The 5th October, pulse small, one hundred and twenty; surface hot; bowels moved six or eight times since yesterday. His last passage, when examined, presented about twelve ounces of clotted dark blood, without a trace of mucus or feculent matter; he could not tell, nor could the nurse, if his previous stools had been similar. Head more giddy than yesterday, feebleness much increased, fainty when he attempts to rise; appetite good, no vomiting, abdomen as yesterday. *Infus. Rhat. Rad.—Pulv. Kino, Cret. ppt. āā grs.* x. *ter die.* He had several similar passages through the day; once or twice expectorated a little dark blood, no vomiting; he sank rapidly and expired during the night.

Autopsy, twelve hours after death. The colon red, and thickened in all its coats, except the serous; the mucous coat much mamelonnated, presenting a few ulcerations in its lower half, from six to eight lines in diameter; their base formed by the sub-mucous tissue; more healthy as we advanced toward the caput coli. This intestine was filled, as well as the ileum throughout its whole extent, with semi-fluid, blackish blood, in all nearly two quarts, very similar in appearance to that observed in the stools during life. The mucous surface of the ileum stained by the contact of the blood, but in other respects perfectly normal, as well as its other tunics. Jejunum pale and healthy; not dyed in any point

by the blood. The stomach distended by fluid blood, more florid than that in the intestines, but still dark in color; its mucous surface stained of a purple, wine-lee color; the membrane normal as to thickness and consistence, a little mamelonnated two inches from the pylorus; both its orifices free. The æsophagus was pale in its upper two-thirds; its mucous coat healthy, but raised up throughout its whole extent by varicose veins seated in the submucous tissue. These varices were more abundant on its posterior face, large and knotted, presenting the same characters as when met with in the extremities—as thick as a writing quill, and communicating freely with each other. About two inches from the cardia, there was a circular perforation from three to four lines in diameter, seated on one of the largest of these tumors; its lower edges clean and perpendicular, a small slough loosely adherent to its superior part, grey and pulpy. When the large vessels were pressed upon any where, blood flowed freely from this opening; and from this point to the cardia the mucous membrane was stained of a livid color. No other trace of sloughing or ulceration; trachea perfectly healthy. The other viscera, with the exception of the brain, were all examined, and presented nothing remarkable.

It is needless to say, that the true nature of the lesion was entirely unknown in this case, until the examination of the body. It is unfortunate that the natural stupidity of this patient prevented his giving a clearer account of his antecedent and actual symptoms; possibly there had been dysphagia or some other symptom, revealing the presence of an obstruction in the æsophagus, but of this nothing was said. The six weeks diarrhœa was explained by the state of his colon, and organic mischief had taken place there to an extent sufficient to have resulted in a fatal issue, even without the singular complication which was the immediate cause of death. The rupture from sloughing took place as often happens in dilated veins of the extremities, at the most prominent point of the enlarged vessels: it occurred probably two days before his admission, when he began to experience that prostration and giddiness which induced him to seek admission into the house; observing blood in his discharges, he conceived himself attacked with dysentery, and his account, together with the state of the pulse, imposed upon the resident student who treated him

for that disorder. It is singular that there should have been no hæmatemesis, but struck with his spitting up a small quantity of blood, he was strictly interrogated upon this point, and constantly returned a negative answer. Varicose veins of the æsophagus I have never met with before, nor have I found any similar case recorded; they may sometimes exist to a lesser degree, but I doubt whether their presence to such an extent, and death caused by their rupture, be not something as yet unheard of in pathological anatomy.

An account of a FEVER, *which occurred in Kent county, Md. in the autumn of* 1839—*by* PEREGRINE WROTH, *M.D. of Chestertown.*

I OFFER, as a contribution to your Journal, a short account of a fever, a few cases of which occurred in my practice during the autumn of 1839. It did not obey that law of epidemics, which, according to the illustrious RUSH, compels all other diseases which appear during their prevalence, to "wear the livery of the reigning monarch." On the contrary, it assumed and exhibited a character of its own, maintaining a series of symptoms essentially different from the epidemic bilious fever, many cases of which prevailed at the same time in the vicinity, and some on the same farm, though not in the same family.

The house of major K. is situated on a high bluff on the northeast side of the mouth of Tines' creek, a branch of the Worton which flows into the Chesapeake bay at the distance of half a mile. On the south side of Worton creek, the banks of which are elevated from twenty to thirty feet above the water, at a distance of about a mile, there is a large pond into which the tides of the bay are *generally* admitted. But in some years, the sands on the flat shores of the bay, by the prevalence of high northwest winds, so completely fill up the outlet of the pond, as to intercept the ingress of the tides. It has been observed by the owners of the adjacent farms that when this is the case, the neighborhood is sickly: and it was so during the fall of 1839.

On the 27th of September, the daughter of major K. a little girl of nine years, was taken in the forenoon with a chill and vomiting, which were soon followed by considerable arterial excitement. At night her father, supposing it to be a case of the prevailing fever, administered a dose of calomel; and early in the morning of the 28th requested my attendance. I found her moderately heated, pulse soft and not much accelerated, with a face *more deeply flushed*, I thought, *than was usual in the remittent fever*, and *complaining of her throat*. No attention was paid to this latter symptom. I considered it as an accidental and unimportant addition to the fever, as I knew that she had, on the day pre-

vious to the attack, twice crossed the creek in an open boat when the air was moist and rather cool.

A saline aperient was directed to aid the mercurial dose given the night before, and I proceeded down the neck to visit some other patients. In the afternoon when returning by the major's gate, I was again requested to see his daughter, and found her covered from head to foot with a scarlet eruption, if *eruption* it may be called, when the skin had none of that papillar aspect which we see in scarlatina and rubeola, but of an uniform scarlet flush, perfectly smooth and glossy, closely resembling erysipelatous fever. The tongue was white and moist; the posterior fauces inflamed, but not of a *scarlet* redness, and considerably *swelled.* Deglutition was consequently difficult, and acutely painful. Arterial action was high.

By the time that the blood which it was deemed necessary to draw, had ceased to flow, the scarlet appearance of the skin wholly vanished, the arterial action was much reduced, she became pale and cooler, and swallowed with less difficulty. More aperient medicine, with an astringent gargle, was prescribed, and I left the patient, as I supposed, free from danger. On the 29th she was visited by Dr. Thomas G. Wroth. The symptoms before enumerated had returned with violence, and he found it necessary to bleed again: and in the afternoon before he left, to repeat the operation. As before, much relief was obtained. On the 30th my visit was repeated, and the lancet again resorted to for the fourth time. About this time the tongue assumed an appearance such as we see in gastro-enteritis, red and inclined to dryness. The gargle was continued, an epispastic applied to the throat, and cooling neutrals and demulcents employed. The scarlet appearance of the skin wholly disappeared in less than three days—a slight desquamation of the cuticle followed after a few days, the swelling of the tonsils and parts adjacent continued and increased. Small doses of calomel and pulvis antimonialis were given every three hours. On the 2d of October, just as the child was going to die, (as the family feared) she seized a mop which had been used in cleansing the fauces, thrust it down the throat, ruptured an abscess formed in the tonsils, a considerable quantity of pus was discharged, and she was instantly relieved.

A new danger now presented itself. The punctures made in

the arms by the lancet, which had been tender and slightly swelled a day or two, now began to inflame. The inflammation extended rapidly towards the axilla, and extensive abscesses, involving the whole of one arm from the axilla to the elbow, not so large in the other, were speedily formed. These discharged much pus at the spot where the punctures were made by the lancet. The left submaxillary glands swelled and suppurated—a cough came on—fever resembling hectic, with profuse night sweats, succeeded and threatened much danger. The exhibition however, of some mild tonics with aperients, followed after a few days by the decoction of sarsaparilla, succeeded in placing the patient in a situation favorable to ultimate recovery. About ten days after this case, two other members of the family, a niece and a servant, were attacked with the same disease. In the one case there was so little febrile movement, that nothing was done but to direct some mild aperients and the astringent gargle. In the case of the servant, the same treatment as in the case of the daughter was found necessary, and the patient went through the same round of tonsillar abscess and inflamed and suppurating lancet wounds, though not of submaxillary abscess. Two other cases occurred afterwards, both of which were so mild as to require little attention.

The disease appeared in a week or two at the house of a neighbor, with whose family there was daily intercourse, while the family of another and a nearer neighbor, but with which there was no familiar communication, entirely escaped. The disease was traced no farther.

It will be perceived by the foregoing history, that this disease resembled scarlatina. Like scarlatina, it was evidently propagated by contagion; the epidermis peeled off in small furfuraceous scales; the skin was of a bright scarlet color, and the submaxillary glands were affected. It differed from that disease in the smooth and shining appearance of the skin—in the period of the eruptive stage—in the deeper hue of the tongue—in the formation of tonsillar abscess, and in its appearance in the autumnal season. The first appearance of scarlatina is always in the winter and spring, though it sometimes continues through the year: and the posterior part of the fauces, though always highly inflamed, swells but little and never suppurates, as far at least as I have seen in a practice of many years. Whether then, the disease which I have described

possesses the requisite nosological character to entitle it to the name of scarlatina, I leave others to determine.

With regard to the treatment of scarlatina, there is great difference of opinion among practical writers. Whilst some insist on the most prompt and active depletion, others condemn it as pernicious, and recommend the exhibition of diffusible stimulants. It appears to me difficult, if not impossible, to reconcile discrepancies which, prima facie, appear irreconcileable. All practitioners of a few years must have seen that in every disease there are *grades* which demand some variation in the treatment; and in the same *case*, the different *stages* require modifications of remedial agents. But when one claims success in the depletory and another in the stimulating practice, a difficulty is presented to the mind of the young practitioner, not easy to be overcome. To me it seems beyond dispute that the disease is essentially and primarily inflammatory; and though there is certainly sufficient evidence that the stimulating treatment has been successful in *some* cases, a much greater mass of testimony is required to render that mode a safe rule in general practice.

HOSPITAL REPORTS.

Report of Cases treated in the Baltimore Alms House Hospital, by Samuel Annan, M.D., *Senior Physician to the Institution.*

Case I.—*Chronic Arachnitis—Bronchitis—Peritonitis—Chronic Gastritis, Hypertrophy of the bladder and rectum—Epilepsy.*

W. V. æt. thirty-two, became addicted to habits of drunkenness when a boy, and has been semi-idiotic for many years. Has been often in the Alms House since 1831, and has been subject to frequent attacks of epilepsy. These fits were much more numerous when he had access to ardent spirit. Was admitted into the Hospital on the 14th of November, laboring under a slight attack of bronchitis. Cough troublesome, and a small degree of sibilus was heard with the stethoscope. Was treated with antimony and purgatives, and was greatly relieved. The cough in a great measure had disappeared. Without any obvious cause the cough returned with increased violence, accompanied by considerable dyspnœa. Still there was but little sibilus and no ronchus. The pulse which had previously been neither frequent nor tense became very frequent, small and feeble, and the face livid. His only complaint on being questioned, was the same as from the beginning of his sickness, viz: "that he was very dirty inside," and a request for more cathartic medicine. Antimony and a blister to the chest were prescribed; but he became rapidly worse and died on the 30th of November.

Autopsy, twelve hours after death. Brain. The arachnoid covering the sides and upper surface of both hemispheres of the cerebrum was opaque and much thicker and denser than natural; so much so as to admit of being torn off from the cineritious sub-

stance in large portions, bringing out with it, from between the convolutions, the processes of pia mater, which were greatly congested. The arachnoid lining the dura mater, had numerous red vessels underneath it, from which it derived somewhat of a pinkish hue. This was more observable on the parts corresponding with the most diseased portions covering the hemispheres. Strong adhesions were found along each side of the superior longitudinal sinus, between the two surfaces of the arachnoid, and the glandulæ pacchioni were numerous at these places. The arachnoid membrane on the base of the cerebrum and cerebellum was normal. The substance of the brain and the plexus choroides were slightly congested.

Chest.—Both lungs were entirely free from adhesions to the costal pleura, and no tubercles were to be seen. The right lung showed the existence of bronchitis; the mucous tissue of the bronchiæ, through the whole lung, being of a dark red color. There was not a very large quantity of muco-purulent matter effused. The left lung was but little diseased. The heart was slightly hypertrophied.

Abdomen.—On opening this cavity the peritoneum was found to have been the seat of intense inflammation. General redness of that portion which lines the parietes, as well as that which covered the intestines, was observed. The intestines were glued together by effused lymph; and a considerable quantity of sero-purulent matter had been secreted. The stomach exhibited evidence of chronic gastritis of long standing. The left extremity as far as the middle was covered with patches resembling ecchymosis, but of a bright red color. The right half was of a dark slate color, becoming rather lighter towards the pylorus. Over the whole surface the mucous coat was softened so as to resemble a pulpy mass when scraped off from the subjacent tissues. The mucous coat of the lower part of the ilium, and also of the colon, was red and softened. The liver was little, if at all, enlarged; but the color was much darker than natural; and scarcely any appearance of the yellow medullary matter was to be seen. One dark brown color pervaded nearly the whole organ. It was slightly softened. The kidnies were soft, and the color of portions of the cortical part was changed from reddish to dark brown, almost purple. The spleen was normal.

Pelvis.—The rectum and bladder were greatly hypertrophied. They not only filled the pelvis, but projected considerably above the brim. The lower half of the rectum was nearly an inch and a half thick. This thickening was of the muscular and cellular coats; especially of the latter. The mucous coat was but little diseased. The muscular coat was a fourth of an inch thick. The cellular coat was more than an inch in thickness. Both these latter were indurated, and the cellular coat was filled with small cavities containing purulent matter. The muscular coat of the bladder was fully the third of an inch thick, and greatly indurated; and the mucous coat over the whole of the organ was reticulated in the most surprising manner. Bands from the sixteenth to the eighth of an inch in breadth, interlaced with each other, so as to give it the appearance of a complete network. The spaces between the crossings of these bands were not less than an eighth of an inch deep. The bands were of a red color, but solid of texture. The unusual development of the muscular fibres, had raised the mucous coat and formed this network; some of the fibres being more prominent than others.

REMARKS.

This case is remarkable for the extent of disease which existed. All the important organs of the body were more or less affected. The chronic disease of the brain, heart, stomach, liver, kidnies, intestines and bladder, must all have been present, probably, for years; and are doubtless to be traced to the life of intemperance and consequent exposure, which he had commenced when a boy. The arachnitis and congestion of the cerebral substance, sufficiently account for the epileptic fits, and mental imbecility; and to the diminished sensibility arising from the same source, we must ascribe the small amount of suffering produced by the diversified and complicated diseases under which he had labored for years. The same torpor of the nervous system also explains the fact, that no complaint was made by him, even after the commencement of the acute peritonitis; which had manifestly attacked him in its most violent form; and in all probability made its first appearance at the time of the recurrence of the symptoms of bronchitis. Even pressure upon the abdomen did not cause him to wince. It is not surprising therefore that this inflammation of the peritoneum was overlooked.

CASE II.—*Fever—Ileitis—Colitis.*

A. H. æt. thirty. This man was admitted on the 20th of November, in a state of extreme prostration. No account of the previous progress of the case was obtained from those who brought him; and he was himself incapable of giving any information on the subject. He appeared to be in the last stage of a protracted fever. He was greatly emaciated, and so weak as to be unable to walk without support. He lay in a state of stupor, making no complaint; from which however he was easily roused; but in attempting to answer questions he was incoherent and contradictory. There was great dulness and torpor of the mental faculties. He appeared to have lost his recollection of occurrences entirely; replied at random; and was unable to arrange his ideas so as to give a consistent account, either of his previous or present condition. He however said he had dull pain of his head; and there was general tenderness of the abdomen on pressure. Pulse 140—very small and feeble. Tongue dry, and covered with a light brown fur. Teeth partially coated, as also his lips, with black sordes.

The hair was cut from his head, a blister applied to the nape of the neck, small doses of the liquor ammoniæ acetatis and infusion of serpentaria were administered, and purgative injections given. His diet was ordered to be light and nutritious. The injections brought away dark pitchy fœces, and ten grains of calomel were prescribed, to be followed by injections, with the effect of some improvement of the color of the evacuations. A large blister was applied to the abdomen, and the same medicines continued. He was unwilling to take nourishment, and desired nothing but cool water. Beef tea, and arrow root gruel—the latter seasoned with a little wine and sugar—appeared to produce nausea. He continued in this state of stupor, gradually becoming weaker, for about seven or eight days, and then died.

Autopsy, thirty-six hours after death. Brain. There was slight opacity of the arachnoid membrane, on the superior surface and sides of the hemispheres of the cerebrum, and also on their base, with adhesions along their central margins adjacent to the falx; and a large number of glandulæ pacchioni were observed. The corpora striata and thalami were softened, especially their

surfaces, and the fornix and septum lucidum were reduced to a pulpy mass. All the other parts of the brain were firm, and but few red points were to be seen on slicing the medullary matter of the cerebral hemispheres.

Thorax.—Nearly the whole of the upper lobe of the right lung, and part of the middle lobe, were solidified; and when cut into presented an uniform, smooth, dark red surface, resembling the spleen, especially when it is hypertrophied, and its texture more solid than natural; whence this state of the lung has been called splenization; and is pretty much the same condition as that which Lænnec calls carnification. It resisted pressure well, but a large quantity of sero-purulent fluid could be squeezed out of it, with which it appeared to be saturated.

Abdomen.—There was no evidence of inflammation of the stomach. The lower third of the ilium, and the whole extent of the colon and rectum, had their mucous coat occupied by ulcers of various sizes and shapes; and the spaces between the ulcers were softened, but not much reddened. About two inches of the ilium, where it terminates in the colon, was entirely covered with a large ulcer, with ragged edges; and an irregular surface. The ilio-colic valve was also the seat of ulceration. Some of the ulcers of the colon were small and perfectly circular, covering a space about the size of a split pea. Others were large and irregular in shape. About three inches of the lower part of the rectum were occupied by a ragged ulcer, which covered the whole surface of that part of the bowel. Some dry, hardened fœces were found in the colon.

REMARKS.

When this man entered the hospital his disease, I suppose, would have been called typhus fever, by the greater number of medical men; and I do not know a more appropriate name. The morbid condition of the colon and rectum was nearly such as is commonly seen after dysentery; and if dysenteric symptoms had existed, there could be no doubt on the subject. The mucous coat between the ulcers was not as red as we see it in dysentery. This is indicative of a less acute inflammation. The affection of the brain, however, was very similar to what has been frequently observed after typhus fever. There was probably more softening of the walls of the lateral ventricles than is generally witnessed. It is impossible to say what was the character

of the disease at its commencement. In all probability it was inflammatory; this being the general type of the fevers of this country; and if he had been treated antiphlogistically, with sufficient energy, the fatal disorganization of the brain and intestines might have been prevented. One thing is certain; that after such serious disease of vital organs has made its appearance, and thickening, opacity, softening and ulceration have taken place, or are approaching, it is in vain to attempt to cure the patient by stimulants and tonics. However great the debility, no good can arise from the employment of this class of remedies. They only serve to increase the action of the heart, and drive the blood with injurious force into the weakened vessels of the inflamed parts, and hasten the disorganization. We have no reason for believing that these remedies improve the tone of the capillaries, debilitated by the local affection, in proportion as they augment the action of the heart; and it is obvious, that unless the capillaries are capable of resisting distension, in the ratio of the heart's power to propel blood into them, the inflamed part will more rapidly pass on to the destructive terminations which are peculiar to the tissues affected. The weakness of the action of the heart would thus appear to be a wise provision for retarding fatal disorganization; and for allowing the recuperative powers inherent in each tissue, time and opportunity to repair the damage already done. If these inflammations were external, and could be reached by local applications, we would endeavor to invigorate the weakened vessels by proper stimulants; and at the same time be especially careful not to rouse the general system beyond what the affected part could endure. It must, however, be admitted that it is extremely difficult to decide upon the proper course in the latter stages of typhus fever. In a large majority of cases there is local inflammation, tending to disorganization; and if we stimulate we aggravate this local affection; and if we do not stimulate our patient sinks, apparently from debility. I have frequently prescribed stimulants and tonics under these circumstances, but in no one instance have I seen any benefit arise from their use. On the contrary, I have often thought that if I had trusted to the efforts of nature, aided by bland, nourishing drinks, with a very small quantity of wine—such as wine whey, or arrow root gruel, seasoned with wine and sugar—my patients would have had a better chance for recovery. I have never seen

any of those cases in which large quantities of brandy, wine, quinine, &c. have been administered with well marked immediate benefit, and final restoration to health. Still I do not mean to deny that such cases have occurred. But they are very uncommon as sporadic cases. It is chiefly in epidemics of a low type, where the prostration comes on early, before ulceration or softening has taken place, that this mode of treatment is most likely to be successful. There not being as yet any serious local disease, and the nervous system being in a state of great torpor, strong stimulants communicate sufficient vigor to prevent local congestion, with its dangerous and often fatal accompaniments. Here the vital powers of the capillaries not being materially impaired, they participate in the general invigoration, and the strength of the whole organism is augmented, no one part suffering in consequence of the improved condition of other portions. The equilibrium is preserved, while the action of all is elevated to a higher standard.

Case III.—*Phthisis Pulmonalis—Chronic Gastritis—Carcinoma of Intestines.*

W. P. æt. twenty-seven, of intemperate habits. Admitted December 4th, 1838. Says he has had the dysentery five months; but on close examination it appears to have partaken more of the nature of diarrhœa from the beginning. Is greatly debilitated. Pulse 140, small and weak. Tongue covered with a thick yellow coat. Skin and eyes jaundiced. Bronchophony at the top of the left, and pectoriloquy at the top of the right lung. Died the next day.

Autopsy, twenty-four hours after death. Body full and round, and much fatter than could reasonably have been expected.

Thorax.—Both lungs were tuberculated, especially the upper lobes. There was a cavity, the size of a small apple, at the top of the right lung, with bronchial tubes opening into it; and small cavities filled with pus at the top of the left lung. The upper lobe of the left side was converted into a solid mass by tubercles. Tubercles were also more thinly scattered over the other lobes, and there was hepatization of parts of the middle lobe of the right side, and of the lower lobes of both sides.

Abdomen.—The mucous coat of the stomach, in its whole extent, was red and softened, changed into a soft pulp, and in

some parts mamillated. There were six ulcers in the ilium, and a seventh at its entrance into the colon. The former were from one to two inches long, and extended entirely round the inner circumference of the bowel. All the coats, with the exception of the peritoneal, were greatly thickened and indurated, forming a complete scirrhus degeneration. This thickening and hardening extended into the mesentery from half an inch to two inches. The ulceration had destroyed the mucous, and more or less of the muscular coat. At one spot, in the hypogastric region, a little above the crest of the pubes, adhesion had taken place between the peritoneal coat of the bowel and that lining the parietes of the abdomen, which, when separated, left an opening into the bowel. The ulcer of the ilium adjacent to the colon was two inches and a half long, and presented the same state of thickening and induration as the others. The caput cœcum, and three inches of the ascending colon, were in precisely the same condition. The whole interior surface of the bowel at this part was one ragged ulcer, the mucous coat being entirely destroyed, and the muscular partially; presenting bands and shreds over the surface of the ulcer. A few small ulcers were seen in the ascending colon above this point. The remainder of this bowel and the rectum were normal. The liver was twice the natural size, and converted into an uniform bright yellow fatty mass, of a soft consistence, yielding readily to the pressure of the finger. Other organs normal. Brain not examined.

REMARKS.

The cancerous ulceration of the intestines is the uncommon part of this case. It is only now and then it is met with. I have known one case where eight or ten inches of the descending colon and sigmoid flexure were thus affected. There was first diarrhœa, and subsequently obstinate constipation, from contraction of the bowel, at a point where ulceration had not taken place. I am not aware that we have any symptoms by which we can distinguish these cases from the diarrhœa which accompanies simple ulceration. ANDRAL remarks in his "Pathological Anatomy," "that almost all the cases of fatty degeneration of the liver are observed in consumptive patients; that is to say, in persons whose blood is no longer suitably elaborated, and in whom pulmonary exhalation cannot be accomplished as in the natural state." He

supposes, "that because in such persons a sufficient quantity of hydrogen ceases to be expelled by the bronchial mucous membrane in the form of aqueous vapor, that principle is separated in excess from the mass of the blood in the hepatic parenchyma, and so produces the fatty matter there." He offers this as an hypothesis. His views are confirmed by the above case, as far as the co-existence of consumption is required.

Case IV.—*Phthisis Pulmonalis.*

W. J. æt. thirty-two. Admitted November 16th, 1838. Has been blind during five years from inflammation brought on by exposure, when acting as servant to an officer in the army, on the western frontier. Had been employed in picking hair for mattresses in 1837 up to October, at which time he was attacked with cough, brought on, he thinks, by inhaling the dust from the hair.

The cough was severe through the winter, and came on in paroxysms, which frequently terminated with vomiting. In July last was seized by pain of the left side of the chest, dyspnœa and fever, accompanied by night sweats, and considerable increase of expectoration. Since that time he has been confined to his bed, and all the symptoms have been gradually growing worse. At present he is greatly emaciated, is constantly harassed by cough, his skin is hot, pulse 140, very small and feeble, and indistinct; has night sweats, and his tongue is slightly furred and moist.

On examination by percussion, nearly the whole of the left side of the chest gives a loud, clear sound, and on applying the stethoscope, amphoric resonance is heard over the same part, extending down as low as the false ribs. Along the left side of the spine there is loud pectoriloquy.

No distinct line of demarkation between a resonant and dull part, as in pneumothorax, can be perceived. On the right side the chest is dull on percussion over the upper lobe of the right lung, and bronchophony is heard with the stethoscope. The middle and lower part of this side sounds well, and the respiratory murmur is clear. Occasionally has sharp pain of left side when he turns in bed. He lies more comfortably on the left side; because when he turns on the right side there is a great increase of the quantity of pus which passes into the trachea; and his

cough is thereby made much more violent. Is somewhat troubled with strangury. His bowels were opened with castor oil, a pectoral mixture was prescribed, an opiate at night, and spirit. nitri dulcis, with diluents for the strangury. But very slight relief was afforded by the remedies, and he did not live above two weeks.

Autopsy, twenty-four hours after death. Emaciation extreme.

Thorax.—In the left lung there was a large cavity, which occupied the greater part of the upper lobe, from above the clavicle, and extended about half way down the lower lobe, gradually becoming narrower as it descended, and terminating in a point. The entire surface of the lung adhered firmly to the costal pleura and diaphragm, and the outer wall of the cavity was formed by a thin layer of condensed parenchyma. The cavity was capable of containing about three pints of fluid. It contained a small quantity of pus. The bronchiæ opened into it by smooth round apertures; two of which, at the root of the lungs, were manifestly the primary divisions. Strong bands of consolidated vessels ran across the cavity at various places. The remaining portion of the left lung was a mass of tubercles and consolidated parenchyma, which yielded readily under the pressure of the finger. The right lung was greatly enlarged, and was tuberculated from top to bottom. At the top, behind the clavicle, there was a small cavity nearly filled with pus. A thick layer of condensed lung was interposed between this cavity and the ribs in front. The trachea was of a bright red color, and the mucous coat was somewhat softened, but not ulcerated. The larynx was slightly reddened, and there was a small oval shaped ulcer on the tracheal surface of the epiglottis.

Abdomen.—The mucous coat of the stomach was softened and somewhat reddened, and both it and the muscular coats were hypertrophied at the pyloric extremity. There was also diminished diameter of the valvular opening; the little finger passing through it with difficulty. There was general redness, and likewise softening of the ilium and colon; and at the lower part of the former some ulceration was seen, and a number of tubercles in the follicles, in a crude state. A large ulcer was found in the caput cœcum coli, and several small ones in the course of the ascending colon. About the ilio-colic valve there was a number of crude tubercles.

REMARKS.

The cavity in this case was unusually large, and the amphoric resonance, (bourdonnement amphorique, of Lænnec,) was remarkably loud and clear. The metallic tinkling (tintement metallique of Lænnec) is occasionally, although very rarely, heard in these large tuberculous excavations. The circumstances requisite to produce metallic tinkling are a large cavity, containing air and more or less of fluid, the less the better, and an opening into it, not too large. If the fistulous opening is very small the tintement cannot be heard during ordinary inspiration or expiration; but will be rendered audible by speaking or coughing. As the orifice enlarges in size it becomes more perceptible, and can be heard with the respiration; and at last it becomes so deepened in tone, from the opening being of great size, that it assumes the character of amphoric resonance. In this case there were several openings, some of them large; and hence the distinctness and loudness of the sound.

Although there were tubercles in the lower part of the right lung, the cells were not so much compressed as in the top; and it was here that the respiratory function was chiefly performed. The thick portion of lung which intervened between the cavity on this side, and the anterior part of the chest, prevented us from hearing pectoriloquy. We had merely the humming, muttering sound of bronchophony. Pectoriloquy no doubt could have been heard on the back and top of the shoulder. The patient however was so weak that I disturbed him as little as possible.

Case V.—*Idiocy from Intemperance.*

J. S. æt. sixty, was admitted November 17th, 1838, and was marked on the books, by the overseer, "intemperate and partially deranged." He went about the house, listless and inactive, with barely sense enough to supply the cravings of nature, gradually becoming weaker and more idiotic, and perfectly harmless from the first day of his admission. For three or four weeks before his death, which took place on February 24th, 1839, it was with difficulty he could be prevailed upon to take nourishment. He would dress himself in the morning and sit all day upon his bed, taking no notice of what was passing around him, and apparently entirely destitute of consciousness. He made no complaint, and seemed to be sinking from inanition.

Autopsy.—The brain alone was examined. There was adhesion of the two surfaces of the arachnoid membrane, along the central margins of the posterior lobes of the cerebrum; and there was a considerable number of glandulæ pacchioni. The veins of the surface of the hemispheres were distended with blood; and the arachnoid membrane, of both sides, covering the upper and lateral parts, especially over the middle lobes, was thickened and opalescent. This membrane adhered firmly to the tops of the convolutions, so that in pulling it off portions of the cineritious part of the brain were drawn off with it, and on examination the surface of the convolutions was found softened. Red vessels were also seen running over the naturally transparent arachnoid. The color of the cineritious part was normal. No change from the natural state was observed on the base of the brain. There was softening of the superficies of the thalami, and also of the fornix and septum lucidum. A small quantity of serum was found in the ventricles.

REMARKS.

We here have a case of adhesion of the membranes to the surface of the brain, accompanied by softening, not only of the convolutions, but likewise of some of the central parts. It is obviously impossible that such extensive organic lesion should exist, and the whole brain not be more or less disturbed in its functional action; and it is therefore equally impossible to tell with certainty how much of the mental disease is to be ascribed to the structural changes, and what part should be assigned to the functional derangement.

CASE VI.—*Arachnitis—Pleuritis—Adhesion of the pericardium to the heart—Colitis—Softening of the spleen and kidneys.*

J. D. æt. fifty-seven. Habits intemperate. January 10th, 1839. Has been in the hospital during several months on account of an ulcer of the leg, with which he has been troubled for several years. When this sore was nearly cicatrized he imprudently went out and exposed himself to cold in a snow-storm, and was attacked with pleurisy of the left side; for which he was bled and blistered, and took antimony, and was speedily relieved from the stitch. In a short time he was seized with symptoms of hydro-

thorax, viz: dyspnœa, increased on lying down, great irregularity of pulse, absence of respiratory murmur, and dulness on percussion, over the greater part of the left side. At the upper and front part of the thorax there were bronchial respiration and bronchophony. For these symptoms he was ordered one grain of digitalis, one grain of squills, and five grains of nitre, three times a day; and five grains of blue mass night and morning; and a blister was applied.

Under this treatment he improved, and in two or three weeks became so much better that strong hopes were entertained of his recovery. The dyspnœa subsided; the pulse became regular and of moderate frequency; and the anxiety of countenance disappeared. There was still, however, some fluid in the left sac of the pleura. Ægophony could be heard, and there was dulness on percussion, with bronchial respiration. His breathing was likewise rather more frequent than natural, and he was pale and sickly looking. While in this condition erysipelas of the face appeared, and in two or three days tremors of the whole body seized him. The arms and shoulders were, however, more affected than the inferior extremities. The motions were so violent as almost to amount to chorea. They were nearly constant, there being only occasional and short intermissions. He complained of no pain of head, but the anterior part of the scalp was sore from the erysipelas. Under mild treatment, viz: gentle purging, solution of acetate of potash, spiritus mendereri, and mercurial ointment to the face, the erysipelas disappeared and the tremors subsided in about a week. He did not, however, again rally. His appetite was entirely destroyed. The dyspnœa in a short time reappeared. The left side became affected. Symptoms of an increase of effusion presented themselves. The pulse again became irregular. He complained of pain of the abdomen, which was increased on pressure; and he died March 8th, 1839.

Autopsy, twelve hours after death. A considerable quantity of fat underneath the skin.

Brain.—There was general turgescence of the superficial veins of the brain. The sac of the arachnoid contained two or three ounces of serum; and this membrane, especially on the upper part and side of the right hemisphere, where it covers the anterior portion of the middle lobe and the posterior part of the anterior lobe, was thickened, slightly opaque, and numerous small red

vessels could be discerned running across the usually transparent portion. The opposite side, at the same parts, was similarly affected, but not in quite so great a degree. The vessels of the pia-mater were very turgid. The vessels of the medullary centres were also congested; particularly those of the right side. On slicing the medullary matter of the cerebrum, blood oozed from a much greater number of red points than is common, and they were much larger than we usually see them. There was no softening of the cerebral texture at any part.

Thorax.—Both sides of the chest contained pleuritic effusion. A quart of brownish serum mixed with large and small floculi of lymph, was found in the left side; and nearly the same quantity of a light straw colored fluid, mixed with lymph and pus, was seen in the right side. The left lung was compressed to its root at the whole of its lower lobe. The upper lobe adhered to the mediastinum and ribs. The right lung was not so much compressed, in consequence of some old bands fastening it to the pleura costalis; and it was therefore not so much consolidated. The false membrane which adhered to both lungs, and was semi-organized, was extremely thick on the left, less so on the right side. The pleura costalis was reddened, and portions of lymph were scattered over its surface. The larger bronchial tubes were red, and a great quantity of serum could be squeezed out, as from a sponge, when the lungs were cut into, and pressed. The pericardium adhered to the heart, over its entire surface. This adhesion did not appear to be recent; inasmuch as the lymph, which had served primarily as the bond of union, had been absorbed. The heart was not, however, increased in size.

Abdomen.—The mucous membrane of the stomach, towards the pylorus, was slightly reddened and somewhat softened. The ordinary whitish yellow color was seen at all other parts. Red softening was found in the caput cœcum coli, and also in a small portion of the sigmoid flexure. The liver was darker than natural, the yellow medullary matter having disappeared. The spleen was softened; one end of it looking like thick brownish purulent matter. The kidneys were pale, especially the cortical part, and were softened. On the surface of each there were two small round cavities, about the eighth of an inch deep; and in the cortical part of the left there was a spherical cavity the size of a filbert.

These cavities were lined with a serous membrane, and must have been filled with fluid, which ran out when they were opened.

REMARKS.

This case is remarkable for the extent of disease that prevailed. The powers of the organism had been greatly impaired by the previous habits of intemperance; and when disturbance of the equilibrium of action took place the greater number of the important organs passed rapidly through the progressive stages of congestion, inflammation, and disorganization. He was no doubt more predisposed to be attacked by inflammation, in consequence of the healing of the old ulcer, and more precaution to guard against exposure to its causes, was therefore demanded. Some are unwilling, on this account, to have old sores cured; but with proper care I have never seen any ill effects follow.

Case VII.—*Pneumonia.*

J. B. æt. thirty—negro. Admitted April 27th, 1839. This man said he had been sick two weeks, and had been attended by a physican, who had not done anything for his relief except order him a few powders. There was dulness on percussion, bronchial respiration, and bronchophony over the whole of the right side of the chest; there was puerile respiration on the left side; and there was tenderness on pressure over the termination of the ilium, between the umbilicus and the anterior superior spinous process of the os ilii of the right side. Pulse very frequent, small and feeble. Tongue brown and dry. Skin cold. Prostration great. Died the same night.

Autopsy. Thorax.—The whole of the right lung was in the third stage of the effects of pneumonic inflammation, viz: purulent infiltration. The bronchial mucous membrane was of a dark red color, and was thickened and softened. The lining membrane of the tubes of the left lung was slightly reddened.

Abdomen.—The stomach contained a considerable quantity of black blood, partly coagulated, and the mucous membrane was reddened and softened. The entire surface, with the exception of a small portion near the pyloric extremity, which was of a dark blue or slate color, was studded over with rounded elevations of a

darker red than the intervening spaces. The lower part of the ilium was reddened and softened. The kidneys were large, pale and soft.

REMARKS.

This case was unquestionably lost by inefficient treatment. Copious bleeding, with the free use of antimony, aided by blisters, would have saved this man when he was first seen. There must have been a mistake, either in the diagnosis, or with respect to the dangerous character of the disease. If the practitioner who attended understood anything about percussion and auscultation there could be no difficulty in the diagnosis; and I trust the day is far distant when we will undertake to treat the pneumonia of this country on the supposition of M. Louis—that antimony alone is as powerful in subduing the morbid action as when aided by blood-letting. Whatever may be the success of this practice in Paris, I am satisfied it is not adapted to our climate and the kind of constitution we have to deal with.

NAVY REPORTS.

Williamson *on Yellow Fever.*

U. S. Navy Hospital,
Near Norfolk, Va. July 1, 1839.

Sir:

I have the honor to forward to you our Quarterly Report of the sick for *April, May* and *June.*

Fourteen were remaining from our last Quarterly Report; twenty-two have been admitted; two have died; thirteen have been discharged; and twenty-one are now remaining upon our report.

You will discover that we have received the sick from the French Steamer, the Meteor, and that we have lost a patient from that vessel. He died from the Yellow Fever, contracted no doubt in the West Indies. The duration of his disease, and the urgency of the symptoms upon his admission here, left us little hope of the successful issue of the case. The remainder of the cases from the present symptoms, I am induced to think will do well.

In the Yellow Fever, whatever is done, must be done quickly. It is a violent disease, and requires an energetic treatment. We find the symptoms indicating general and local dipletion. It was not withheld, and I flatter myself, the happiest results must necessarily flow. It is to be remembered that a most salutary measure in cases of the kind, is, to remove those who are taken, to a freely ventilated apartment; by this means we modify the character of it, and render it much less dangerous.

Ships in tropical climates must not trust to single means to keep them healthy. Much has been said of the Chlorides of Lime and Sodæ, as preventives of disease. They must be considered as valuable adjuncts to other means. If you keep a ship clean, dry,

and well ventilated, and that by every practicable method within your control, you will accomplish much. If disease attacks you, you will be able to bear up under it, and you can modify disease even on ship-board, by bringing to your aid a variety of means.

These suggestions are made as it is more than probable that some one of our public vessels in the West Indies, in their various cruises, might have the form of Fever which I have spoken of, and not having any bearing whatever upon the Meteor, or any other foreign vessel.

With great respect,

THOMAS WILLIAMSON, *Surgeon.*

Hon. JAMES K. PAULDING,
Secretary of the Navy,
City of Washington.

WILLIAMSON *on Yellow Fever on board the French Steam Vessel of War, Meteor.*

U. S. NAVY HOSPITAL,
Near Norfolk, Va. July 11, 1839.

SIR:

The whole number of officers and men that have been received as patients here from the French Steam Vessel of War, Meteor, has been fourteen.

I am pleased to inform you, that only one death took place, and that, of a seaman who came here late on the fourth day of his disease (yellow fever,) and died early on the fifth.

All the cases wore the livery of what is called the yellow fever of tropical climates, and in some, the symptoms were very formidable. Upon the arrival of the patients at the Hospital, (they were requested to be sent as soon as they were taken sick,) the most prompt measures were resorted to, such as copious *general* bleeding, and also *local*,—cold purgative enemas,—sponging the surface with cold water,—ice to the head,—iced mucilaginous drink, in small quantities,—stimulating salt baths to the feet and hands,—calomel and rhubarb, five grains of the former and ten of the latter,—sinapisms to the region of the stomach, were most suc-

cessfully used in these forms of fever. Their removal and the course of practice above stated, at once arrested the disease in its incipiency, or modified it, so that on yesterday, the surgeon of that vessel, the last of the sick officers, left us. All the seamen were sent on board the afternoon previously, at the request of the Commander of the ship, as they were on the eve of departure for New York. In addition to the number received here, several were prescribed for, and they all did well.

I am happy to state to you, that the Commander of the Meteor, expressed to us his satisfaction at the courtesy extended to him, and the services rendered to his crew, which might have suffered severely (as their surgeon was very ill under our charge,) had we not adopted the course which humanity dictated and national courtesy expected.

I take great pleasure in stating to you, the very efficient aid, my assistant surgeon Dr. McLEOD afforded to me. His familiar knowledge of the French language and his unceasing industry in watching the diseases of the crew of the Meteor, were very important, and deserves my warmest approbation.

With very great respect,

THOMAS WILLIAMSON, *Surgeon.*

Forwarded by S. WARRINGTON.

The Hon. JAMES K. PAULDING,
Secretary of the Navy,
City of Washington.

WILLIAMSON *on African Fever.*

U. S. NAVY HOSPITAL,
Near Norfolk, Va., Nov. 27, 1839.

SIR:

In calling your attention to the subject of preserving the health of seamen cruising on the coast of Africa, and suggesting every means to accomplish so desirable an end, I would beg leave to remark; vessels visiting the coast at this season of the year have but little to apprehend, if ordinary precautionary means are resorted to, and due vigilance is observed. It should ever be borne

in mind, that persons should not be allowed to sleep on shore there, and not allowed to be on shore after sunset, nor should they be sent very early of a morning, as it is important that the dampness of the night, should be got rid of by the morning sun, ere they leave the ship. In watering and wooding, the seamen are not to be employed, (but the kroomen from the shore,) the wood is to be well smoked and dried, before it is received on board, so that insects and other annoying things may be got rid of. Thick clothes should at all times be particularly recommended;—flannel next to the body, is of the first importance, and I am clearly of the opinion, that linen shirts should be excluded from our naval service, unless they are worn over flannel or cotton. Our landsmen and ordinary seamen should be compelled to attend to it; the old seamen have long ere this seen the advantage of being well protected by their flannels. Men should not be allowed to sleep on the deck at night. The awnings are to be hauled well down, particularly when it rains, and at night. Avoid boat duty as much as possible, and ever let the men have their meals before they are put on hard duty. Excess in nothing should be the motto of all visiting the western coast of Africa; our officers should look with great care to keeping their vessels clean, well ventilated and dry. The latter requiring particular attention, and drying stoves properly constructed will prove of immense service.

A moderate indulgence in good ripe fruit, permitted on board under the supervision of a discreet officer, cannot be objected to. Music will ever exert a beneficial effect with seamen, and is one of the preventives of disease. Punishment by the colt, cat, and stopping any part of their ration, more particularly their grog, should be avoided as much as possible; but let me be understood, the most rigid discipline on board of a vessel of war, I cannot but highly approve of, and would strongly recommend it to all going there. But the depressing effects of punishment, and the withdrawal of all accustomed stimulants tend to invite disease, rather than to escape it.

If the men get wet, their clothes should be changed as soon as possible, but their wet clothes, are not to be carried below on any account. Their beds should all be made of hair, frequently aired; their bed-clothes washed as often as possible; clothes aired and kept dry. The Chlorides of Lime and Sodæ, may be frequently resorted

to, but as adjuncts to other means, and not looked to with too much confidence to free them from disease, or get rid of them when present.

Diseases are violent on the coast of Africa, at particular seasons. They are to be diligently looked to in their incipiency, and to be met with an energetic course of practice, such as is pursued in our high grades of fever in our Southern country. Trace disease to its source, and notice with great care the symptoms, and there will be little difficulty if the practice is energetic, of getting rid of it. That the within may prove as beneficial to others, as they have to me, is my most sincere wish. They would have been submitted to the Department earlier, but during my leave of absence I suffered from a fall, which prevented me from doing it as early as I could have desired.

That they may prove satisfactory to you, will, I assure you, be a source of great gratification to me.

With great respect,

THOMAS WILLIAMSON,
Surgeon U. S. Navy.

Forwarded by L. WARRINGTON.

The Hon. JAMES K. PAULDING,
Secretary of the Navy,
City of Washington.

REVIEWS.

Elements of Pathological Anatomy, illustrated by numerous engravings. By Samuel D. Gross, M.D., late Professor of General Anatomy, Physiology, and Pathological Anatomy, in the Medical Department of the Cincinnati College. In two vols. 8vo. pp. 518—510. *Boston,* 1839.

To those who have contemplated a science at the highest point of elevation which it has attained, it is a pleasing and not useless task to turn their eyes towards its humble and obscure origin, and after tracing the history

> "Of those so low beginnings,
> From whence it dates its winnings,"

to follow its course upwards, to mark what has retarded and what has accelerated its progress, and to derive from the past the lessons of warning and of encouragement for the future.

The rise of Pathological Anatomy, the subject to which our attention has been recently called by a perusal of the excellent work whose title we have given above, is particularly worthy of consideration and study, for upon it have depended in a great measure the fortunes and vicissitudes of the best part of medical philosophy.

Clinical observation,—the study of symptoms and of the *juvantia and lædentia* in disease,—must necessarily have engaged the attention of medical men from the very origin of our art, and appears to have been prosecuted with great assiduity and success. Those who have heard much of the *chaste observations* of the ancient writers on medicine, are apt to be somewhat disappointed

and shocked upon first opening their volumes. But a little examination will show, that of the greatest defects and worst errors of those authors, a very large proportion was inevitable, and should in justice be ascribed to the general condition of physical science at the period when they occurred; and that after every thing false, useless, and pernicious has been deducted from their writings, enough will still remain to prove that they were acute observers and accurate recorders of symptoms, and possessed of very respectable skill in the great art of relieving and removing diseases. Their science, though destitute of the light of true pathology, and therefore "with knowledge at one entrance quite shut out," was yet far from being contemptible or useless.

The importance of an acquaintance with Morbid Anatomy was also early perceived, but the cultivation of this study must have been greatly retarded and interrupted by the general and natural prejudices of mankind. Still it appears to have been not entirely neglected in even the most distant periods that are known to history. Pliny informs us, that it was the custom of the kings of Egypt, to cause dead bodies to be dissected, in order to find out the origin and nature of diseases;* and we learn from Manetho, that books of Anatomy were written in the reign of the second King of the Thinites.† The dissections, however, were probably rare and but little satisfactory, and the books very unlike those of Meckel and Cloquet.

Among the Greeks, Pathological Anatomy was almost wholly unknown, for it was impossible that it could be cultivated by a people possessed of so little acquaintance with the normal or healthy condition of the organism. The most of their anatomists attempted to gain a knowledge of the human frame, physiology, and pathology, by the devious and fallacious expedient of conjectures and analogies derived from dissections of the lower animals. The celebrated Democritus, who is justly characterized by Burton as "a man of an excellent wit and profound conceit," was one of those who adopted this method. The efforts of this philosopher to detect the seat and nature of the *atra bilis*, by dissecting the bodies of brutes, in order that he might devise a mode of curing melancholy and madness, are highly commended by Hippocrates,‡

* Nat. Hist. L. xix. c. 5. † See Warburton's *Divine Legation of Moses*, Book iv.
‡ *Epistola ad Damagetum*, Opera, P. 1279.

who appears himself to have resorted to a similar course of investigation, and to have drawn his own anatomical lore from the same sources. Yet the knowledge which he thus acquired he probably held in no very high esteem, for we find him declaring that those who considered an acquaintance with the structure of the body to be necessary to the practiser of medicine are greatly mistaken; and that skill in anatomy is in reality less important to physicians than to painters.* This heretical decision of the *Divine Old Man*, for which SYDENHAM has generously but not very successfully attempted to apologize,† was of course cheerfully and diligently adopted by his followers, and so long and so carefully maintained, that it is extremely questionable whether even GALEN ever witnessed the dissection of a human subject. Others, however, of the ancients professed to pursue a different and wiser course. The school of ASCLEPIADES insisted upon the indispensable importance of an accurate practical knowledge of anatomy; and HEROPHILUS and ERASISTRATUS not only examined the dead bodies of men, but, with an excess of zeal as foreign from real science as from humanity, were also in the habit, as CELSUS and TERTULLIAN assure us, of procuring criminals from prisons and dissecting them alive.‡

But in whatever manner anatomy was studied, whether by the autopsies of human or of brute subjects, its progress among the ancients was but slow and limited. This is attributable to various causes; to the real difficulties of the pursuit, which could be surmounted only by time and multiplied efforts; to a superstitious reverence for the bodies of the dead; to some of the most eminent writers having relied upon their imagination when their eyes and scalpels would have served them better; and to a blind submission to the authority of great names, by which errors were transmitted from generation to generation. This latter influence was so potent, that even as late as the fifteenth century we find FALLOPIUS declaring that it was as dangerous and unreasonable to differ from HEROPHILUS, on a question of anatomy, as to contradict

* Medici quidam et sophistæ fieri non posse dicunt, ut quis artem, medicam cognoscat, nisi idem noverit quid sit homo, et quænam ejus prima generatio et compositio. Equidem quæ ab his de natura dicta aut scripta sunt non tam ad artem medicam quam ad pictoriam spectare existimo. *De Prisca Medicina*, Op. p. 16.

† Opera, *De Hydrope*.

‡ Celsus, *De Re Medica*, Præfat.

the Gospel; an opinion similar in philosophic spirit to that of the learned Cornelius Scriblerus, who contends, that though it may be true enough that modern blood circulates, yet it by no means thence follows that Hippocrates was mistaken in ascribing to the blood of the ancients simply a flux and reflux from and to the heart, like the tides of the ocean.

From the days of Galen up to the sixteenth century hardly any considerable improvements were made in anatomical learning. The labors of the illustrious and ill-requited Vesalius, who may properly be styled the father of true anatomy, gave at this period such an impulse to the science as effectually freed it from the chains by which it had for ages been held in servile bondage to the unmerited control of the ancients. It was now steadily and rapidly advanced; the normal condition of the organs was more accurately studied, and it consequently at length became possible to detect and examine their various morbid changes.

Pathological anatomy, for the dayspring of which preparation was thus made, is chiefly indebted for its immediate origin to Theophilus Bonetus, a native of Geneva, who published in that city, in the year 1679, his *Sepulchretum, sive Anatomia Practica,* which was subsequently enlarged and improved by his countryman Mangetus. This great work, which consists of an immense collection of cases of various diseases with the appearances found upon dissection, was followed by the similar publications of Valsalva and his distinguished pupil Morgagni; by those of Lieutaud, of Payer, the Hoffmans, Haller, Baillie, and numerous other able writers, all of whom labored with greater or less success in studying disease with the scalpel. From the want, however, of proper principles to direct their exertions, these zealous pioneers of medical philosophy failed in their efforts to raise pathological anatomy to the dignity of a science. Towards the accomplishment of this important object they rendered valuable services by a vast accumulation of facts; but the proper mode of reconciling, combining, and systematizing these facts was not yet discovered, and their acquisitions were consequently thrown together in a state of disorder and confusion,—

> ——————"rudis indigestaque moles,
> Nec quidquam nisi pondus iners, congestaque eodem
> Non bene junctarum discordia semina rerum;
> Nullus adhuc mundo præbebat lumina Titan."

To lay the corner stone of the new temple of science for which materials had thus been collected, and to assist with a giant's might in erecting its walls, was a part of the glorious task reserved for the transcendent genius of Bichat. The light diffused by this great man over every region of medicine has shone with special lustre upon the field of pathological research. His doctrine of the elementary tissues, which may fairly be considered the most important of the contributions that have recently been added to the treasures of science, is the guiding loadstar by which pathologists were first directed to the proper method of examining the traces of disease. Since the epoch of Bichat, pathological anatomy has ceased to consist, as it had previously done, of a meager statement of alterations in the condition of organs. As treated of by himself, and by the most of those who have followed him, it is in a great measure identified with true pathology. It is the philosophy of the symptoms observed during disease, studied in conjunction with the organic changes discovered after death, and with reference to the nature of the primary actions from which those symptoms and changes have originated. It is the mediator between the solidists and humoralists, correcting the sectarian and uncatholic spirit of both, and effectually putting an end to those extravagances sneered at by the melancholy satirist, who was once a member of our profession, and had studied medical literature at least sufficiently to be aware of its errors and defects—

> "One in the solids finds each lurking ill,
> Nor grants the passive fluids power to kill;
> A learned friend some subtler reason brings,
> Absolves the channels, but condemns their springs;
> While every symptom of each strange disease
> With every system of each sage agrees."*

The researches of Prout, Carswell, and Andral have placed the pathology of the fluids in its true position, and secured it at once against ignorant contempt on the one hand, and equally ignorant and exclusive attention on the other.

In its present improved condition, morbid anatomy has been signally useful to medical science. Too much perhaps has been expected from it; more than it has yet accomplished, and more probably than it ever can accomplish. There are various vital

* Crabbe.

lesions of which it is not yet prepared to take cognizance. There are various mysterious modifications of parts giving rise to disease and death, which it has not yet enabled us, with our present instruments and present senses, to detect. It has made us acquainted with the effects and complications of fever, and with the fact, so important in practice, of its frequent connexion with local inflammation; but of the intimate nature of the disease the ablest recent investigators have confessed themselves incapable of obtaining any definite and exact knowledge—

——"has ne possint naturæ accedere partes,
Frigidus obstiterit circum præcordia sanguis.*

There are also various other maladies whose origin and primitive seat pathological anatomy has not yet pointed out. Still, as we said before, it has been signally useful to medical science. It has added immensely to the certainty of diagnosis; has discovered and investigated a multitude of new facts; been the guide of therapeutic measures, the test and arbiter of the reports of experience, and the fruitful source of practical principles. It has thus been the most important of the several means that are at length removing from medicine the reproach of being a mere conjectural art, establishing it upon the firm basis of philosophy, and enabling it to approximate the character of an exact science.

In reviewing the progress of medicine from its origin to the present day, we perceive that the cultivation of this science has been attempted at different periods in three various modes. The Greek physicians, their generous but unequal Roman emulators, their beggarly Saracenic dependants, and indeed, with some few exceptions, the whole medical world up to the seventeenth century, studied symptoms alone, as if in them had consisted the totality of disease. From the publication of the writings of Bartholin and Bonetus to the advent of Bichat, the great object of study was structural changes in individual organs, without attention to the connexion existing among the various parts by virtue of the identity of their component tissues. Since the immortal revelations of Bichat, during the last forty or fifty years, a period eventful in the annals of science, pathological changes have been scrutinized with reference to the character of the affected

* Virgil. *Georg. II.*

tissues, to the healthy and morbid physiology of the implicated organs, to the diathesis and the symptoms of the patient before death, and to the probable nature of the molecular commotion which formed the first link in the chain of diseased action.

Among those who have been recently, or are at present, pursuing medical philosophy according to this latter method,—

> ——————"descending
> In their lone wanderings to the caves of death,
> Searching its cause in its effect, and drawing
> From wither'd bones, and skulls, and heap'd-up dust,
> Conclusions,"—*

are numerous distinguished names which science will long have cause to commemorate with gratitude and pride. In Great Britain, Bright, Armstrong, Monro, Cragie, Abercrombie, Hope, Mayo, and Carswell; in Germany, Voigtel, Meckel, Rudolphi, and Lobstein; in France, Cruveilhier, Rayer, Corvisart, Rostan, Lallemand, Beclard, Laennec, Bayle, Broussais, Andral, and Louis, are but a part of the illustrious band, whose labors in the investigation of disease, have exalted our century in scientific glory above all the past ages of the world; and, what is far more important, have rendered, and are still rendering, inestimable services to the cause of humanity.

In our own country, though the study of pathological anatomy had by no means been neglected, as was proved by the appearance of many excellent essays on detached subjects, there was yet no general work on the science until the publication of the treatise by Professor Horner of Philadelphia, in 1829. This production, which is highly valuable as detailing the observations of its indefatigable author, but too limited in its plan, and taking too little cognizance of the researches of others, to be considered an adequate representative of the state of the science, has now, after an interval of ten years, been succeeded by the more extensive, more learned, and more elaborate volumes of Dr. Gross.

The object of this new work, its author informs us, is to furnish as far as practicable, a comprehensive view of the existing state of pathological anatomy. It is divided into two parts; the first, extending through one third of the first volume, is devoted to the general principles of the science, or to a consideration of those

* Manfred.

affections that are common to all parts of the human system; the second part, which completes the first and fills the whole of the second volume, treats of special pathological anatomy, or of those lesions that are peculiar to certain organs and tissues.

The first part contains seventeen chapters, and is mostly taken up with the subject of inflammation, and its coincident or consequent processes, the effusion of serum and lymph, the secretion of pus, the occurrence of softening, gangrene, ulceration, granulation and cicatrization. The other topics of this portion of the work are hemorrhage, induration, hypertrophy, atrophy, transformations, hydatids, serous cysts, and heterologous formations.

The nature and extent of the work preclude the possibility, or at least the propriety, of attempting any full analysis of its contents. To give even the briefest and most summary examination of the whole of its doctrines, would be to prepare an infliction from which the reader might, and no doubt would, deliver himself by a very simple and effectual expedient, but which would fall with inevitable weight upon the head of the critic. We shall, therefore, undertake on the present occasion to offer only a short account of a very small part of the first volume.

The chapter on inflammation, the subject so important to the theory and practice of both medicine and surgery, appears to have been prepared with particular care.

"Some apology," says Dr. Gross, "may be thought necessary for the manner in which the author has expressed himself in relation to this subject. Disclaiming to be a follower of any man or school in medicine, the sentiments he has avowed are the results of his conscientious conviction, grounded upon personal observation and reflection; and as such he does not hesitate to submit them to the scientific scrutiny of his professional brethren."

The chapter commences by a few brief observations on the nature of the sympathies which subsist among the various organs. The most remarkable statement connected with this subject is in reference to the occasional transfer of an attack of gout from the fibrous textures of the extremities to the pericardium. Of this metastasis the author declares, that it must take place solely on account of similarity of structure, for every anatomist knows there is no connexion whatever between the fibrous envelopes of the voluntary muscles and the fibrous covering of the heart. Now,

that there are traces or appearances of such a connexion is unquestionable, and it seems to us that the true nature of those appearances is sufficiently manifested by the occurrence of the metastasis in question. That one very able and distinguished recent anatomist zealously maintained the existence of this connexion, must necessarily be known to Dr. Gross; and the correctness of his opinion those who are acquainted with his acuteness of perception and integrity of judgment will not easily be led to doubt by a mere verbal denial. We allude, of course, to that brilliant naturalist, the late Dr. Godman, a man whose genius, perseverance, adversities, and early death are at once the glory and misfortune of the science and literature of our country.*

The next question that occurs is respecting the nature and essence of disease, which is properly defined to be a departure from the sound state, whether that departure consist simply in a derangement of function or of structure.

"The proximate cause of morbid action," says Dr. Gross, "and the immediate cause of life in the healthy state, are as inscrutable to the human mind as the cause of gravitation, of attraction, and repulsion." p. 23.

This position, the truth of which in the present state of our knowledge cannot be questioned, appears to us not to accord very happily with an opinion which the author expresses a few pages farther on.

"All diseases," he says, "I feel confident will ultimately be found to have a local origin and habitation; and if this should ever be proved to be true, the whole class of febrile maladies, with its hundred varieties and subdivisions, will cease to have a place in our medical treatises." p. 30.

It is sufficiently evident, that the proximate cause of disease,—which is in reality only the first process of disease itself—being confessedly inscrutible, and its locality the most unknown and undiscoverable of all its properties, we are, in strictness of speech, unacquainted with the local origin of any malady whatever. But even if we understand the phrase *proximate cause* in a less philosophic sense, as indicating the first visible organic change, which is uniformly found to occur in any given disease—

* See *Anatomical Investigations*, by John D. Godman, M.D., Sect. 3.

such, for example, as inflammation of the mucous membrane of the large intestines in dysentery,—we can still see no reason for thinking with Dr. Gross, that it will ever be proved that all diseases are connected with some such cognizable lesion. Nothing of the kind has as yet been proved, and we are wholly unable to perceive the least dawning indication that any proof of this connexion is about to be offered; if such a demonstration be approaching, it assuredly does not belong to that class of coming events which "cast their shadows before." Whether we are guided by right reason, drawing just inferences from the past, whether it is the result of our constitutional temperament, naturally the reverse of sanguine, or whether we are beginning to experience the influence of that period of life which, according to Gibbon's melancholy acknowledgment, is always tinged with a browner shade by the failure of hope, we will not attempt to decide; but we have certainly long since ceased to expect that splendid triumph of pathology which Dr. Gross predicts, and are inclined to believe, that of the source and location of many diseases, we may declare with stricter truth than was anciently said respecting the fountain of the Nile—

> "Arcanum Natura caput non prodidit ulli,
> Amovitque sinus, et gentes maluit ortus
> Mirari, quam nosse."*

Broussais, with all his splendid services to the cause of science, is admitted to have been but a dreamer as regards his doctrine of the local origin of fever. He and other anatomists, who have engaged in the investigation of the *primum mobile* of this disease, have indeed, in the failure of the primary object of their pursuit, and in the admirable value of their incidental and unexpected discoveries, fared not unlike the early Spanish voyagers, who sailed in quest of the fabulous realms of Cathay and Prester John, and reached the golden coasts of Mexico and Peru. To pronounce at this time, after so many disappointments, that the local origin and habitation of all diseases will eventually be discovered, displays, we think, a degree of confidence no more authorized by the spirit of science, than was the hap-hazard conjecture of Seneca, in reference to the discovery of a new continent, by the spirit of prophesy.

* Lucan. *Pharsalia* L. X.

The modifications of inflammation by temperament, age, sex, habit, climate, season, the nature of the exciting cause, and the character of the tissue which is invaded, are briefly referred to. Its divisions into chronic and acute, common and specific, and the unequal frequency of its attacks upon the various organs and textures, are noticed in a concise but satisfactory manner.

In discussing the vexed question of the nature of inflammation, the phenomena of that disease, and its seat or location in the system, are the points first examined.

The symptoms,—the redness, heat, pain, and swelling mentioned by Celsus, together with its effects in altering or suspending the natural secretions of the part in which it occurs, and in perverting the nutritive functions, are lucidly and ably detailed, but with no material deviations from the opinions expressed by the generality of modern writers.

A defect of some moment in the treatment of this part of the subject is the omission of any reference to the changes excited by inflammation in the vital properties of the blood. Though these changes are adverted to in another department of the work, in connexion with the general pathology of the fluids, they should certainly have been noticed in the present chapter as constituting an important and remarkable portion of the early effects of inflammatory action.

That the *seat* of inflammation is in the capillaries, the author considers indisputable. The situation, structure, and function of those vessels he examines carefully and minutely. He views them not as a distinct set of vessels, but merely as the connecting medium between the arteries and veins, the exact point where the arterial capillaries end and the venous begin being indeterminable.

Respecting their *structure*, he differs from Bichat and Beclard, who maintain that they are composed of the inner membrane alone of the veins and arteries, the other coats of those vessels being excluded from their composition. Dr. Gross contends that they have the same number of tunics as the larger vessels, and attempts to establish this opinion by reference to analogy.

"Let us take," he says, "the excretory duct of the liver, and follow it along its ultimate ramification in the organ whose secreted fluids it is intended to carry off from the system. In the early

part of its course it consists, plainly enough, of two tunics, which, as they extend into the substance of the viscus, become so excessively attenuated that it is quite impossible not only to separate them from each other, but even to distinguish them from the surrounding textures. Now that the inner membrane is prolonged as far as the very point at which the tube terminates, or rather where it takes its origin, no one can for a moment doubt, for the bile is a highly acrid fluid, and hence nature, in order to guard against suffering, has wisely furnished the canal with a mucous lining. But is it *reasonable* to presume that, because we can no longer discern the external tunic, it must necessarily be wanting? Is it not more *philosophical* to suppose that both membranes exist, than to say that one is preserved and the other lost? This conclusion involves nothing that is either absurd or improbable; and although not founded on actual observation, it is much more in conformity with sound anatomy and physiology than any other that has been framed in relation to the subject. If now, we apply this mode of reasoning to the capillaries, it will at once be perceived that the theory of Bichat and Beclard is untenable; and that these vessels, instead of possessing, as they imagine, only one tunic, have precisely the same number as the arteries and veins between which they are situated." p. 39.

Of this mode of reasoning, if such it must be called, we make no objection to admitting that the conclusion involves nothing that is absurd. Whether the same proposition can be maintained in favor of the reasoning itself, we will not presume to decide. The capillaries, it appears, and the minute ramifications of the excretory duct of the liver, are evidently possessed of a continuation of the inner lining membrane of the vessel from which they proceed; that any of the other coats of those vessels enter into their structure cannot be perceived; Bichat and Beclard, influenced by the sound maxim *de non apparentibus et non existentibus eadem est ratio*, deny that they do; Dr. Gross, on the other hand, without attempting any proof of the fact, affirms that it is *reasonable* and *philosophical* to believe that both membranes exist in the minutest vessels of the liver, and that we should therefore infer from analogy that the same thing is true with respect to the capillaries. He forgets that his reader, if not disposed to be particularly amiable, may, like Sir John Falstaff, deny his major.

In relation to his argument, we would remark, in the first place, that the object of analogy being to enlighten what is doubtful by means of what is certain, it can never be usefully applied where of the two cases that are collated the one is obscure at precisely the same point, to the same extent, and in the same degree, as the other; and, in the second place, that if reason and philosophy be invoked to rule the decision concerning the ducts of the liver, without reference to cognizable facts, we might with exactly the same propriety have at once referred the structure of the capillaries to their arbitration, their authority being, for any thing that we can see, fully as extensive in the one case as in the other. The question is in itself of but very small moment, and we have adverted to it simply to notice a vagueness of argument, of which the work presents but few parallel instances.

The nervous system, Dr. Gross thinks it highly probable, is as much engaged in the process of inflammation as the capillaries, and he refers to the ingenious experiments of Magendie, Brodie, and Philip, in illustration of its agency. The intimate connexion between the nerves and capillary vessels explains the well known fact of a burn, blister, or any other irritant occasioning so much more severe and dangerous effects on a paralytic part than on one enjoying a healthy degree of innervation; and to the same relation is to be attributed the inflammation of the bladder which always supervenes upon serious injury of the spinal marrow.

In the account of the several steps which occur in the production of inflammation, there is of course but little that is new. An irritating agent produces upon some part of the system a local impression, which is reflected upon the cerebro-spinal axis, and through that medium upon the heart. This organ, thus excited to increased action, perceptibly distends the capillaries of the affected part with an undue quantity of blood. The augmented afflux of blood, and the enlargement of the capillary tubes, can be clearly seen, in suitable parts of living animals, by means of a microscope, and are the phenomena which constitue the first stage of the disease. The next stage, if the inflammation continue, commences by a cessation of circulation through the congested vessels. The blood which they contain becomes thick, viscid, partially clotted, and of a modena color. The coats of the vessels are softened; serum and coagulated lymph are effused, and fill

the intervals between them. In severe cases, blood itself is extravasated, and sometimes forms new channels through the cellular tissue, along which it afterwards continues to circulate. At the same time, the part is red, hot, painful, tumid, and its healthy functions are suspended. The change in the vessels is not confined to the capillaries; the larger arteries leading to the inflamed part are also affected, being distended often to a considerable distance with darkened and viscid blood.

We are surprised to find that Dr. Gross supposes there is no augmentation of force in the action of these vessels.

"It has been alleged," he says, "that the larger arteries in the immediate neighborhood of the lesion occasionally pulsate with preternatural force and frequency; but this is an assertion which is unsupported by proof, and which is moreover in direct opposition with every principle of physiology." p. 45.

That in such cases the pulsation of the arteries is not more *frequent* than that of the heart, is of course unquestionable; but it is equally certain that their *force* of action is exalted above its ordinary grade. In proof of this position, we refer to the experience of any one who has observed in himself or others the difference in vigor of pulsation between the two arteries on each side of a finger affected with paronychia and those of a healthy finger. The fact, indeed, of the increased power of the arteries in the vicinity of an inflamed part is perfectly established, and is referred to by all of the best writers on inflammation.

In relation to the proximate cause of inflammation, Dr. Gross offers a brief statement of the theories of Boerhaave, Cullen, Vacca, and Hunter. Vacca maintained, that inflammation results from sanguineous congestion, attended with more or less debility of the capillaries of the affected part. Hunter, on the contrary, thought that the primary cause of the disease is an increased action of the vessels. Dr. Gross adopts both of these views, but with limitations unknown to their respective authors.

"In the early stage of the disorder, we have every reason," he says, "to believe, from the phenomena which are exhibited under the microscope, that the vessels have an augmented action; subsequently, however, when the disease is fully established, the capillaries are partially paralyzed, the blood ceases to circulate, the function of nutrition, of secretion, and absorption, is inter-

rupted, and every thing indicates the diminished power of the part." p. 51.

The congestions and discolorations, independent of inflammation, which may occur in the different organs and tissues, immediately prior to, during, or subsequently to death, are referred by Dr. Gross to mechanical obstructions, interfering with the free return of venous blood, and to the effects of stimulating agents, introduced into the body either as food, drink, medicine, or poison. Of these two classes the latter is treated of in a different part of the work. The causes belonging to the former are enumerated as, 1. obstruction of the heart and great vessels by the formation of fibrinous concretions during the last struggles of life; 2. partial paralysis of the heart; 3. asphyxia, whether induced by actual strangulation, the inhalation of deleterious gasses, or difficult dissolution in ordinary sickness; 4. the gravitation of the blood after death, and the transudation of this fluid, or of some of its component elements, through the parietes of the vessels. To distinguish congestions arising from any of these agencies from that occasioned by inflammation, is sometimes extremely difficult, and, in a pathological point of view, often very important. The proper guides to a correct judgment are a consideration of the symptoms of the case, and of the effects of the remedies employed, together with the presence or absence of the ordinary products of inflammatory action, as effusion, opacity, softening, induration, thickening, or ulceration.

A statement of the various modes in which inflammation may terminate, concludes the chapter, and with it we must close our present notice of the work. Before we do so, we cannot, however, forbear to express our sense of its excellence and value. The author's situation in the College of Cincinnati has afforded him an opportunity, which he appears to have improved with signal industry, of acquiring extensive personal experience in the examination of morbid structures. Every book upon any subject of physical science must at the present day, in order to be useful, partake in a considerable degree of the character of a compilation. Accordingly we find that Dr. Gross, in addition to the results of his own observations, has also made frequent and copious use of the information contained in the writings of others; and in availing himself of this source of instruction he has evinced the industry,

judgment, and extensive learing of a diligent and successful student. The execution of his work is worthy of the favorable circumstances under which it was designed, and of the evident zeal and affection with which it has been labored. In turning over its pages we have observed some opinions from which we should be obliged entirely to dissent, and others which we should be unable to adopt without hesitation and doubt. But these are, with a few exceptions, connected with subjects of but trivial moment, and we should be guilty of a dereliction of duty if we failed to commend Dr. Gross' work to the attention of our readers as inculcating doctrines and principles which may very generally be safely received, and as presenting a correct, perspicuous, and satisfactory exposition of the present condition of pathological anatomy.

The occasional errors in language which occur, we have not hesitated, in compliance perhaps with that equitable adage which enjoins justice to even the author of evil, to ascribe to the familiars of the printer's office. Whatever their origin, we trust that they will be among the morbid products or heterologous formations to which the author will have attended before his work attains to a second edition.

The mechanical execution or *getting up* of the volumes is fair and commendable, not belonging to the first, or falling much if at all below the second grade of American medical publications. The colored engravings are of such excellence as to excite regret that they are not more numerous; and the wood cuts, though not very favorable specimens of the xylographic art, and indeed somewhat coarse, are yet amply sufficient for the great purpose of elucidating the text.

S. C.

BIBLIOGRAPHICAL NOTICES.

A brief inquiry into the causes of the Superiority of Man in the Northern Hemisphere over those of the Southern Hemisphere. By JAMES LAKEY, Esq., M.D. Being part of an Appendix to Delafield's Inquiry into the Origin of the Antiquities of America. *New York.* 1839.

THIS tract is certainly a very learned, able, and satisfactory performance, illustrating established opinions in a manner perfectly novel, and explaining phenomena in a style of philosophy bold, original, and truly transcendental.

That the Northern Hemisphere is, and always has been, far superior to the Southern as respects the character of its human inhabitants, is a doctrine very generally admitted among those who live on our side of the Equator, and which we have but little reason and less inclination to discountenance or dispute. The mode of deciding this question so satisfactorily to all Northern philosophers, has heretofore been by the use of arguments and facts exceedingly different from those now advanced by Dr. LAKEY. The contrast between his and all former methods of treating this subject is indeed so great, and so illustrative of the improving spirit of modern philosophy, that though the inquiry itself lies not exactly in our path as medical journalists, we have yet determined to give it some brief consideration, principally for the purpose of pointing out to our readers the rapid advance of physical science.

The objects of Dr. LAKEY's essay are—1*st*, to demonstrate the superiority of the inhabitants of the Northern over those of the Southern Hemisphere; and 2*dly*, to assign the explanation of this remarkable fact.

The author commences by stating that the men and land animals of South America are inferior to those of North America.

In confirmation of this assertion, he compares the trade and commerce of Buenos Ayres, Chili, and Patagonia, with those of the United States, and the obvious difference between them evinces, he thinks, the extreme inferiority of the people of the former countries to those of the latter.

Upon such a comparison as this, a philosopher less bold and decided in his views would scarcely have ventured. Any one but Dr. LAKEY would probably, in seeking to ascertain the influence of the two hemispheres upon the human mind, have rather thought of comparing the descendants of Spaniards in South America with those of the same people in Mexico. The two parties in this case being from a common stock, having the same customs, manners, and religion, being until lately under the same government, and suffering recently from similar civil commotions, had there been any material inequality distinguishable in their intellectual capacities, it might with greater show of probability, according to the vulgar judgment, have been attributed to some peculiarity of their respective localities. But a comparison of this kind would evidently

have been not at all striking and conclusive in its results, and Dr. LAKEY has therefore very judiciously instituted a wholly different one, which tells with triumphant force in favor of his hypothesis.

An equally remarkable contrast might have been pointed out between the commerce, and therefore the mental power, of the people of Spain and Great Britain; or of those of Mexico and the United States. But this fact being not german to his subject, Dr. LAKEY has very properly pretermitted it.

As farther evidence of the low condition of the South Americans, the Doctor mentions that they were unable in 1807 to drive the English from their conquests on the La Plata, without the aid of foreign generals, officers, and engineers.

This fact is certainly indicative of a sad falling-off from the military skill and heroic virtues of their parent race, who, as all the world knows, about the same time succeeded, without the assistance of the DUKE OF WELLINGTON or of any foreign power, in easily and speedily expelling the armies of NAPOLEON from the Peninsula.

Another fact adverted to in proof of the degeneracy of the Spanish Americans, is the failure of their attempt in the 17th and 18th centuries to subdue the savage Araucanians of Chili, an event so different from the splendid success of their ancestors, in the preceding century, against the Peruvians. Our author admits that the Araucanians, unlike the Peruvians, were extremely poor; that they remained unconquered more in consequence of their poverty than their prowess; and that an army invading a rich country for their own benefit are naturally more zealous and ardent than one attacking a poor country for the service of the King of Spain. But these facts not affording an explanation of the ill success of the attempts against the Araucanians at all consistent with his theory, Dr. LAKEY has with great discernment disregarded them and referred the failure entirely to the degeneracy of the descendants of the Spanish conquerors.

The inferiority of South to North Africa, Dr. LAKEY declares, is even more apparent and striking than that of South to North America.

This point is established by a reference to the deplorable degeneracy of the Dutch colonists at the Cape of Good Hope, and to the exceedingly undignified and inelegant habits of the Hottentots.

Those who have admitted that the Dutch farmers in Africa are inferior in civilization to their European ancestors, have heretofore attributed this fact to the peculiar circumstances of their social condition, the wide separation of their settlements, the lazy pastoral abundance of their country, and the consequent absence of the necessity of exertion, the first great stimulus to improvement—

> ——————————"labor
> Improbus, et duris urgens in rebus egestas;"

and it has been generally supposed that the same people would have been equally affected by similar circumstances on either side of the Equator.

All of these considerations have appeared to Dr. LAKEY too frivolous to merit the slightest notice, and he has very *philosophically* referred the semi-barbarous condition of the colonists simply to the fact of their location in the Southern Hemisphere.

The miserable debasement of the Hottentots is well and forcibly displayed by contrasting them with the Carthagenians of Northern Africa in the time of Hannibal. These latter people, descended from an Asiatic colony, living at a widely remote period, and under a totally different polity, would have been thought by an *unphilosophic* writer scarcely the most suitable subjects of comparison with the present natives of Caffraria. But these are idle scruples, which the philosophy of Dr. LAKEY dispels with as much ease as the vinegar of his favorite Hannibal dissolved the rocks of the Alps.

The inhabitants of Australasia are next compared with the ancient pagan natives of Ireland and Scotland, and made, of course, to display the inherent inferiority of the hemisphere to which they belong.

A less *philosophic* writer than Dr. LAKEY would probably have considered that this difference might in some measure have resulted from other causes than mere diversity of latitude. The ancient Scots and Irish were a vastly more numerous people than the wandering hordes of New Holland, New Zealand, and Van Dieman's Land, and therefore naturally more likely to improve; they were also in habits of frequent intercourse with other nations, as those of Gaul and Spain, while the Australasians, on the contrary, were until recently wholly isolated. And in addition to this, it might perhaps be recollected that cannibalism, the worst and most disgusting atrocity which has been proved against the Australasians, is by no means peculiar to those unfortunate people. For, to omit other evidence of its occurrence in various parts of the Northern Hemisphere, it would appear proper to mention as directly connected with the comparison which our author has proposed, that we are assured by St. JEROM, whose testimony on such a subject even Mr. ISAAC TAYLOR would admit to be unexceptionable, that the prevalence of this revolting vice among the ancient Scots had fallen under his own personal observation; and that it appears to have been connected among this people with circumstances of detestable epicurism, fully as horrible as any thing that can ever have been witnessed in the forests of New Zealand.*

These considerations are with propriety omitted, being no doubt viewed by Dr. LAKEY as entirely impertinent. Cannibalism, he assures us, is the peculiar vice of New Zealanders: we may look in vain among the barbarians of the North for this hyena disposition; and in Western Europe also, though peopled by warlike and ferocious pagans, this monstrous habit has always been wholly unknown. As to St. JEROM, he had no tincture of science, and his statement is therefore of no authority, contrary to *philosophic* theory, and unworthy of notice.

Having thus disposed of the Australasians, the author returns once more to the descendants of the Dutch and Spaniards in South Africa and South America. The former, he declares, have sadly degenerated from their European ancestors, while the posterity of the same people in New York and New Jersey have greatly improved; and for these facts it is evident that no *philosophic* reason can be assigned but the difference of the two hemispheres.

That the Spaniards in Buenos Ayres, and the Portuguese in Brazil and East Africa have also degenerated, he assures us again, is perfectly well known. It might perhaps be objected, that both the parent nations in the Spanish Peninsula have likewise declined; but our author,—

> ——————"naris emunctæ homo,
> Natura nunquam verba cui potuit dare,"

is prepared for this objection with a sufficient and most *philosophic* answer. Those nations, he says, have indeed fallen, but before they fell they had risen, whereas the Buenos Ayreans have never risen, but have been constantly prostrate!

As final evidence of the inferiority of the South to the North, Dr. LAKEY refers to the comparative size and character of the lower animals in the two hemispheres. The elephants and leopards of South Africa are, as might be expected, much smaller and

* Cum ipse adolescentulus in Gallia viderim Attacottos, gentem Britannicam, humanis vesci carnibus; et cum per silvas porcorum greges, et armentorum, pecudumque reperiant, pastorum nates, et feminarum papillas solere abscindere, et has solas ciborum delicias arbitrari. *Opera*, tom. 2. p. 75. The Attacotti were a tribe who lived near the site of the present city of Glasgow.

less courageous than those of the Northern part of the continent. "The Cape lion," he informs us, "is said to be quite a cowardly animal, and is a wholly different creature from the lion of sacred and profane history, the lion of romance and fable, the king of beasts, who figures largely in the pages of Esop and La Fontaine, holding levees and making speeches." p. 118.

If we felt disposed to say a word in behalf of the lions of the South, who it appears are incapable of speaking for themselves, we might perhaps suggest that Pringle and other recent observers, who have had opportunities of learning their characters in their native wilds, have represented them as not at all deficient in proper leonine qualities; but as none of those writers pretends to have attended their levees or heard their orations, we must acknowledge that Dr. Lakey is perfectly correct and *philosophic* in ranking them far below their kindred brutes of the North.

Dr. Godman has attempted in his Natural History to show that the lion is in his best estate less generous, magnanimous, and intelligent than the poorest poodle dog. Had our admirable naturalist been aware of the deference due to Æsop and La Fontaine as scientific zoologists, he would doubtless have restricted his disparaging remarks to the lions of the Southern Hemisphere, and paid proper homage to the eloquence, wisdom, and other royal attributes of those of the North.

Such are the proofs offered by Dr. Lakey of the preponderance of the North over the South. Readers who have long entertained this doctrine as a familiar truth, will yet be struck and astonished by the author's new mode of establishing it, and in the peculiarity and perfect originality of his views cannot fail to recognize the infallible traces of true genius. This estimate of his abilities will be in no wise lowered by examining his manner of accounting for the fact whose existence he has so amply demonstrated.

The two great causes which he assigns are—*first*, the shortness of the Southern summer; and *second*, the immense and disproportionate mass of water in the Southern zone.

That the people of the South must necessarily be powerfully impressed by the former of these influences, will be manifest to any one who reflects that their summer is at least eight days shorter than that enjoyed by the Northern nations. No wonder that so formidable an abbreviation of the period of solar light and heat should be found sufficient

"To freeze the genial current of their souls;"

and when we consider that this "frightful negative" is acting continually, we shall cease to admire that even the mercurial vivacity of the Dutch settlers at the Cape has been unequal to resist its paralysing agency.

It may be objected by the captious, that the summer in many Southern countries if short is yet excessively hot; but Dr. Lakey assures us, that this heat is of a *peculiar* character, and not at all fitted to compensate by its intensity for the irreparable annual loss of eight days of its duration.

The *second* cause enumerated is the immense disparity between the land and water of the Southern Hemisphere.

In examining this division of Dr. Lakey's treatise, we confess we were not a little disappointed. We had felt exceedingly curious to learn in what manner such a circumstance can have contributed to degrade the inhabitants of one half of the globe, and to prevent the proper development of their minds. But unfortunately upon this part of his subject our author has not attempted to throw any light. The question is beset, he says, on every side with extreme difficulties, which he appears to have thought of such magnitude, that with an excess of modesty wholly out of place he has made no exertion to remove them, but has contented himself with simply announcing the fact, without entering upon any exposition of its rationale.

In addition to these two great causes, the author suggests, by way of makeweight to

his explanation, that the inferiority of the South to the North may perhaps in part be owing to the difference of the *magnetic intensity* of the two hemispheres; and this conjecture certainly appears to us to be fully as intelligible, ingenious, and *philosophic* as either of the others which he has stated.

Beautiful and satisfactory as is Dr. LAKEY'S system, there is one fact, however, which it has not yet enabled him to explain, and by which it is probable that all future speculators will be equally puzzled. It is a circumstance which deserves to be ranked in the same category with that emptiness of the arteries after death, which HARVEY was unable to account for, but which was never considered sufficient to counterbalance the powerful evidence which he adduced in favor of his immortal theory. "A philosopher," says Dr. LAKEY, "may reasonably inquire why the equatorial regions which produce and perfect the elephant, the lion, and the tiger, should fail in furnishing eminent men." p. 109. The old-fashioned solution of this difficulty, derived from the supposition that eminence among men has generally some reference to intellectual power, and that the human mind and the bodies of brutes owe their growth and perfection to very different causes, is justly regarded by our author as antiquated and out of date; "*nous avons changé tout cela*," and the question is therefore referred to the decision of time, adult philosophy, and the good fortune of some genius yet unborn.

The great practical inference which Dr. LAKEY draws from his examination of this subject, is that the nations of the Southern Hemisphere are doomed to *eternal* inferiority, and that colonies sent among them from the North cannot fail, from "the quality o' the climate" rapidly to degenerate. Even the Anglo-Australians, he tells us, have already declined from the moral and intellectual elevation of their native ST. GILES', and there is no reason to believe that they can ever become rich or enlightened, or ever cease to be ruled by the remote Northern island which governs them at present.

These *philosophic* conclusions will naturally remind the reader of the similar reach of intellect which enabled the COUNT DE BUFFON to trace and establish the true and beautiful law, in accordance with which all the animal productions, whether men or brutes, of both North and South America, dwindle and sink into insignificance when compared with their prototypes in the Old World. They are also not unlike in spirit to the result of that prophetic discernment, which led the ABBE RAYNAL to infer from the fact of America having in his time produced no poet, mathematician, or man of genius in any art or science, that she would be similarly and equally unproductive for ever. The prediction of the perpetual subjection of the Australian colony, though somewhat bold when considered in connexion with the political changes of South America,

> "Where Chimborazo, over air, earth, wave,
> Glares with his Titan eye, and sees no slave,"

will yet appear exceedingly *philosophic* to those who consider the different national characters of the descendants of Spaniards and of Englishmen.

In concluding our most imperfect notice of this very excellent discourse, we cannot forbear to advert once more to the extraordinary novelty of the author's views. With a proper regard both for his own and his country's honor, Dr. LAKEY has himself strenuously insisted upon this characteristic of his work: "My view of the subject," he says, "is entirely new, and although I have light enough, I have neither path nor precedent to guide me." We trust that no future VESPUCCI will be allowed to intercept any portion of the glory of this new COLUMBUS in the realms of science, and that the arbiters of literary renown will be continually prepared to vindicate his claim to the distinction of perfect originality, and to apply to him that splendid apostrophe addressed by the Epicurean poet to a far inferior philosopher—

> "O tenebris tantis tam clarum extollere lumen
> Qui primus potuisti! tu, Pater, *causarum* inventor!" S. C.

PAINE'S *Medical and Physiological Commentaries.* New York.

WE have received this book of Dr. PAINE with great pleasure. It has been long expected. The mechanical execution is beautiful, and the contents, as was to be expected from the well known character of the author, are replete with value.

We did not receive it in time to review it, as it would deserve in this number. We promise to do this in our next. In the meantime we expect from our New York friends contributions which will alike do credit to our pages, and benefit the profession at large.

[The following communications were not received in time to be placed in the original department. We insert them here in consequence of their interest.]

Theory of the Daguerreotype Process—By William E. A. Aikin, *M.D., Professor of Chemistry and Pharmacy, University of Maryland.*

Some additional experiments upon this mysterious and interesting subject seem to give still greater probability to the theory suggested at the close of the article on the Daguerreotype in the last number of this Journal. The explanation of the process there hastily given, and which I have thought sufficiently probable to offer to my class, is simply as follows:

When the silver plate has been properly polished and exposed to the vapor of iodine, an iodide of silver is formed upon its surface. This iodide being exceedingly sensitive to light, is acted upon in the camera in a manner hitherto inexplicable, but the result of which is to render it decomposable by the vapor of mercury. Hence when the plate is transferred from the camera to the mercurial box, the coating of iodide of silver, altered by the light to which it has been exposed, is decomposed by the mercurial vapor, and two new products are obtained. One portion of mercury unites with the iodine and forms an iodide of mercury, and another portion unites with the silver and forms an amalgam of silver. Lastly, the final washing of the plate removes all the newly formed iodide of mercury, and leaves the amalgam of silver which constitutes the picture. The difference of light and shade in the picture appears referrible to a difference in the thickness of the deposit of amalgam of silver. This difference being again caused by the unequal action of light in the camera, those parts most brightly illuminated being subsequently more acted upon by the mercury than other parts that have been less illuminated. But there is one difficulty to be recollected. Is the whole of the iodide first formed on the plate finally decomposed by the mercurial

vapor? Such can hardly be the case, since then there should be no difference in the quantity of amalgam formed on different parts of the plates, and we could not so well understand the production of light and shade in the picture. But if the first formed coating of iodide of silver is not at last wholly decomposed, how is the portion remaining unchanged protected from the further action of light? May the delicate film of amalgam on the whole surface of the picture act as a protection to any iodide of silver beneath the surface?

The experimental results which countenance the above view I will now briefly detail. First, in relation to the yellow coating formed on the silver plate by exposure to the vapor of iodine. That it is an iodide of silver, and not a mere mechanical deposit of iodine, may be made apparent. This coating is soluble in a solution of table salt—so is the acknowledged iodide of silver—and so, in lesser degree, is pure iodine. But the solution of iodine in that of table salt strikes a blue color at once, when brought in contact with a solution of starch. No such effect is produced when a solution of table salt containing the yellow coating, or one containing the iodide of silver is used with the starch, for the simple reason that the iodine is in combination. Whereas, to produce the effect, it must be free. The addition of a drop of sulphuric acid, in the last two cases, gives at once the blue tint, in consequence of the decomposition of the iodide and the liberation of free iodine. It is well known that if the plate is kept too long exposed to the vapor of iodine, it acquires a purplish tint and becomes insensible to light in the camera. The same effect is produced by the incautious exposure of the properly prepared plate to light—hence the care required to seclude it from even the most feeble rays. I had thought at one time that such a condition of things might be produced if we could suppose the film of iodide, formed by the first contact of the iodine vapor with the silver surface, to be afterwards covered with iodine in substance condensed upon it. And the same result observed after the undue exposure of the properly colored plate, I had supposed, might be owing to decomposition of a part or the whole of the iodide, leaving the dark colored and free iodine visible. This supposed decomposition of the iodide of silver by light has been thought sufficient by some to explain the action of light on the plate in the camera,

which would leave the silver in a pulverulent state favorable to the action of the mercurial vapor. But no such supposition can be admitted if my experiments are correct. A plate properly prepared was exposed freely to light, until the yellow tint had given place to a deep purple hue. The purple coat was then dissolved by a solution of table salt; but the resulting solution would give no indication of the presence of iodine until the addition of a drop of sulphuric acid. Hence the change in the color of the plate cannot be owing to the liberation of free iodine. Neither can we consider the effect of the action of light in the camera as the liberation of free iodine.

The action of light in the camera is quite inexplicable at present, and a long time may elapse before the secret is revealed. The very agent indispensable for the operations of the experimenter, the light necessary for his observations, may materially modify his results.

The action of the mercurial vapor appears somewhat more intelligible. As it has been proved that the iodide of silver is not decomposed by an exposure more than equal to that which is necessary in the camera, we cannot consider the mercurial vapor as simply uniting with a pulverulent deposit of metallic silver, supposed to be present on the plate. The silver is still in combination with iodine when the plate is placed in the mercurial box. The composition of the wash finally used shows the true action of the mercury. On evaporating a quantity of this, which had been several times used, and treating the dry residuum with nitric acid, again evaporating and dissolving the residuum in distilled water, I obtained a colorless liquid, which was subjected to the following reagents. A drop was placed upon the surface of a gold ring, and the point of a penknife made to touch the gold through the liquid. In the course of a few minutes the moistened gold, when viewed with a pocket lens, exhibited unequivocally the peculiar appearance caused by the action of metallic mercury upon its surface. The addition of muriatic acid and, at another time, the addition of muriate of soda, did not at all disturb the transparency of the solution. Hence it must have contained a mercurial salt, but could not have contained any salt of silver. The minutest quantity of the last would have been made visible as an insoluble chloride, by the last two reagents. The last

washing then brings away a mercurial compound, but does not remove any of the silver, which accords with the changes I have supposed produced by the mercurial vapor. I did not think it necessary to search for the presence of iodine in the above liquid, since it must be present of necessity. Metallic mercury could not be dissolved in a solution of hyposulphite of soda, or of table salt, and we cannot possibly conceive of its combination in this case with any thing but iodine. We have to encounter here the same difficulty which I have mentioned as attending the supposed action of mercury on the prepared plate. If the mercurial vapor acts unequally, decomposing the iodide of silver more completely where it has been most fully exposed to light, and less completely where it has been less exposed, there must always be on every picture a portion of the iodide of silver left unchanged. If either of the solutions used for the final washing should come in contact with this iodide of silver, it would certainly be dissolved, and the proper reagents would then indicate the presence of silver in the wash. Such was not the case in my experiments, and the only inference left is that the iodide of silver, which is not decomposed when the plate is exposed to the mercurial vapor, is protected from the wash subsequently used by being covered with a delicate film of the insoluble amalgam of silver. Although the action of light upon the plate in the camera is certainly unequal, yet we cannot conceive that any portion of the surface is totally deprived of light. Hence there must be some mercurial action over the whole surface, greater or less, as indicated by the light and shade in the picture. Lastly, in regard to the nature of the delicate film which constitutes the picture itself, I endeavored to satify myself by the following process. Dilute nitric acid was applied to the whole surface of a picture, and the reaction suffered to proceed until the picture itself, a portion of the silver surface beneath, and even a portion of the copper base was removed. From the resulting liquid the silver was thrown down as an insoluble chloride, by means of muriatic acid. The remaining solution was precipitated by a stream of sulphuretted hydrogen, and the resulting mixed sulphurets finally obtained in a dry state. I suppose them to be sulphurets of copper and mercury. To determine this a few grains were introduced in a glass bulb, which communicated on one side by a bent quill tube with a wine glass of

water, and on the other side by a straight tube with an apparatus for liberating chlorine. The chlorine before it was permitted to pass into the bulb, being made to pass through a tube containing fragments of recently ignited chloride of calcium, to free the gas from all traces of aqueous vapor. After the whole apparatus had been filled with chlorine, heat was applied to the sulphurets in the bulb, when there soon appeared a delicate crystalline crust, in the opening of the tube, connecting the bulb with the vessel of water. This portion of the tube was then removed by a file, and the adhering matter dissolved in distilled water; when the liquid, on examination, proved simply a dilute solution of corrosive sublimate. It whitened a gold surface when applied in the manner detailed in another place. It gave a grey precipitate with the protomuriate of tin, and a yellowish orange precipitate with a solution of caustic potassa. Thus leaving no doubt as to its character.

These experiments, as detailed, constitute my reasons for adopting the theory of the Daguerreotype process, now given. As my sole object is the discovery of truth, I should be happy to have some more probable theory offered, if such can be suggested.

Garlick *on the Preparation of Daguerreotype Plates.*

Baltimore, August 11th, 1840.

The wonderful discovery of M. Daguerre, of the mode of fixing the images of the camera obscura, has induced many to repeat his experiments; some with the hope of simplifying the complicated and somewhat obscure processes by which he obtains his very interesting results. In the early part of last January I commenced a series of experiments, with a view to ascertain if better and cheaper plates could not be made than those used by M. Daguerre. I am happy to say that my success has exceeded my most sanguine expectations.

The difficulty of procuring good plates, and their costliness, present the first obstacles. It being absolutely necessary to have a *perfectly pure* surface of silver to produce a good picture, the common plated sheet copper used by the saddlers will not answer. The materials of the plates I now use can be easily procured anywhere, and at a trifling expense. The operator can make them himself in a very short time, for they neither require to be heated, nor the application of nitric acid, as directed by M. Daguerre, which abbreviates and simplifies the process very much. I use sheet brass; copper is as good, if it be well planished, so as to make it very dense. The plate must be highly polished, first using fine pumice and oil, which gives a tolerably fine and regular surface, then rotten stone and oil, which improves it considerably. You now cleanse it well by washing or wiping, when it must be finished very highly by the buff with the peroxide of iron without oil. The plate must be as bright as a mirror to produce a fine picture.

It is now ready for the silvering. Make a weak solution of the nitrate of silver, which must be applied equally over the surface of the brass, with a camel's hair brush. The silver is instantly precipitated, and adheres to the plate very firmly in the form of a dark brown powder. The surface should then be rubbed over gently with super tartrate of potash made moist with water, which restores it to its bright color. The suc-

cessive application of the solution of the nitrate of silver and the super-tartrate should be repeated at least three times. The solution of the nitrate should not be too strong, as it then corrodes the brass, and the silver will come off in flakes. The best criterion is to try the solution upon the edge of the plate. If it turns the plate *instantly* black it is too strong. It should produce a deep brown color, and that rather gradually. You now take another buff, (which should be used for no other purpose, and must be soft,) and a little very fine peroxide of iron, and polish the plate finally as highly as possible. The buff should pass over the plate transversely, instead of circularly, as recommended by M. DAGUERRE, so that the marks it leaves should all run one way.

It is now ready for the iodine. The whole process is easily accomplished after a little practice. I could polish and silver the plate, and produce the picture in less time than it has taken to sketch this article. When these plates are properly prepared, they are capable of producing the very finest specimens of Daguerreotype drawing. I have made a number of drawings with them, and some of them are the finest I have ever seen. I have been assisted in my labors by my friend, Dr. AUGUSTUS BARNUM, and embrace with pleasure this occasion to express my deep sensibility of his kindness, and my high estimation of his character.

THEODATUS GARLICK, M.D.

FOREIGN INTELLIGENCE.

MEDICAL.

From the American Journal of the Medical Sciences.

On the employment of a new Vegetable Monesia, in Medicine. By Dr. G. J. Martin St. Ange.

A vegetable substance called *monesia*, has lately been imported from South America, in the form of hard thick cakes, weighing about five hundred grammes (9215 grains.) These loaves, which are flattened, and have paper of a yellow color adhering to them, are composed of the extract, prepared in the country, from the bark of a tree whose botanical name is not known. M. Bernard Derosne, the druggist who introduced it, informs me that some travellers call the monesia bark *goharem*, and others *buranhem*. But what is of more importance is, that the naturalists who have examined it think that the tree which furnishes it is a chrysophyllum.

The extract is of a deep brown, and very friable; when broken it looks like a well-roasted cocoa nut. It is entirely soluble in water, and its taste, which is at first sugary like liquorice, soon becomes astringent, and leaves behind a well-marked and lasting acid taste, which is particularly felt in the tonsils.

The bark of the monesia is smooth and grayish, like that of the plane tree, with this difference, however, that it is much thicker, that its fracture is imbricated, and that its sweet taste forms a strong contrast with the bitterness of the thin laminæ which are detached from the plane.

The chemical analysis of the bark of the monesia, and of the imported extract, according to MM. Bernard Derosne and O'Henry, has demonstrated the presence of the following soluble principles:—1. Chlorophylle; 2. vegetable wax; 3. a fatty and crystallizable matter; 4. glycyrrhizine; 5. an acrid and somewhat bitter substance; 6. a little tannin; 7. an unexamined organic acid; 8. a red coloring matter, resembling that of cinchona; 9. phosphates of lime, with organic acids.

The pharmaceutical preparations which have been made with this substance are—1. an aqueous extract; 2. syrup, containing thirty centigrammes ($5\frac{1}{2}$ grains) in the ounce; 3. a hydro-alcoholic tincture, containing two grammes (37 grains) per ounce; 4. chocolate, containing thirty centigrammes ($5\frac{1}{2}$ grains) in each cake weighing three decagrammes; (7 drachms, 49 grains;) 5. an ointment, containing an eighth part of its weight of extract; 6. monesine, being the acrid substance mentioned in the analysis.

The extract contains about eight per cent. of glycyrrhizine, and twenty per cent. of acrid matter.

The following accounts of monesia are already in existence:—1. A manuscript memoir, which is in the hands of the commissioners appointed by the Academy of Medicine. 2. A synoptical table, giving the analysis, some pharmaceutical preparations, and the medicinal preparations of monesia. 3. A very minute summary of these two papers, entitled, "Account of Monesia." 4. An article inserted in the *Bulletin Therapeutique*.

I will now give a succinct account of the facts which have been published, before mentioning the results which I have obtained myself.

The medical cases in the synoptic table have been drawn up by several physicians in Paris; they give the nature of the disease, the sex, the profession, the age, and the constitution of the patient; the mode of treatment, the duration of the disease, the termination; and lastly, the remarks suggested by each method of treatment.

M. Alquie, professor of internal pathology at the Val-de-Grace, found:—

1. That of forty-two soldiers attacked with diarrhœa of different degrees of severity, thirty-six were cured in twelve days; twenty-four by the extract of monesia given in pills, in the dose of from eighty centigrammes to a gramme (14½ to 18½ grains) a day; and twelve by the tincture, administered as a clyster, in the dose of eight grammes (147½ grains) in two hundred and fifty grammes (4607½ grains) of bran water.

2. That in two cases of menorrhagia, the extract and the tincture of monesia given internally soon calmed the pain, and stopped the uterine discharge.

3. That in four women attacked with profuse leucorrhœa, the extract of monesia given internally, and the diluted tincture injected into the vagina, were beneficial.

4. That in two cases of hæmoptysis, where bleeding, ligature of the limbs, and ordinary astringents, had been employed without advantage, the extract of monesia succeeded completely; and that several chronic cases of bronchorrhœa were benefitted by the syrup of monesia, which was sometimes combined with opium.

M. Baron cites—1. A very remarkable case of chronic inflammation of the vagina, of a syphilitic kind. No advantage had attended the previous use of baths, local bleedings, emollient and astringent injections, the nitrate of silver; a year later the diluted supernitrate of mercury, sulphureous baths, leeches, and the repeated application of blisters and sinapisms, were equally useless. In spite of these remedies the discharge from the vagina became more abundant. Injections were then used containing thirty grammes (552 grains and 9-10ths) of the extract of monesia in a hundred and fifty grammes (2764½ grains) of water. In eight days the discharge was much diminished, and in three weeks the patient was cured. The discharge returned in a month, but again yielded to the same injection.

2. A case of leucorrhœa. The discharge was copious, of a yellowish white color, and accompanied with pains in the groins and lumbar regions; baths, leeches, and injections of mallow water and laudanum, had produced no benefit. Injections of monesia, in the proportion of thirty grammes (552 grains and 9-10ths) to a hundred grammes (3317½ grains) of water, were employed once a day, and the patient was cured in a fortnight.

3. Several cases of diarrhœa, which resisted the means generally used, were cured by the extract of monesia given internally, and clysters containing the tincture, in different proportions.

M. Buchez has employed the extract of monesia, and has remarked, that it delayed the progress of caries in the teeth, and that, when combined with opium, it often soothed the pain more effectually than the opium alone. He recommends the employment of the tincture to keep the gums in a healthy state.

M. Daynac speaks of the good effects he has obtained from the preparations of monesia (the syrup, lozenges, and paste) in several cases of the chronic catarrh of the old, in dyspeptic persons, and in the third stage of phthisis. He also cites remarkable cases of scrofulous engorgement, much benefitted by the use of the tincture of monesia, in the

dose of eight grammes (147¼ grains) daily, continued for a greater or less time. Lastly, the extract of monesia in pills, in the dose of from sixty to ninety centigrammes (11 to 16½ grains) has been very serviceable in uterine discharges.

M. Laurand speaks of a well marked case of scurvy which he cured with monesia. The patient had had frequent epistaxis, which had several times required the nostrils to be plugged. He was made to inspire acidulated water by the nostrils, containing thirty grammes (552 grains and 9-10ths) of the tincture to a pound of water. This stopped the hemorrhage; but when the same thing had been done with acidulated water not containing monesia, it had not succeeded. The patient also took from a gramme to a gramme and a half (18½ to 27¾ grains) internally every day. The same physician has ascertained the efficacy of monesia in a great variety of circumstances, particularly in gangrenous eschars on the sacrum.

M. Manec has employed the different preparations of monesia with success:—1. In a man who, for six years, had had a large serpiginous ulcer in the bend of the groin, which had resisted every kind of treatment, and which rapidly improved under the use of monesia ointment.

2. In a great number of aged women laboring under diarrhœa, and in persons affected with chronic bronchitis.

M. Monod has furnished some very interesting cases; some of ulcers of the nose, and others of affections of the intestinal canal. The ulcers were dressed with the powdered extract, and cured in a few days. In the other cases the extract given in pills to the amount of from sixty to a hundred and twenty centigrammes (11 to 22 grains) daily, was perfectly successful.

M. Payen, who has employed monesia in a great number of cases, has seen a patient in whom leucorrhœa was considerably increased by this medicine, administered two different times; the monesia was then tried as an injection, and the discharge, which had hitherto resisted every remedy, disappeared, and did not return. The same practitioner cites two cases of uterine hemorrhage, where the patients were obliged to keep their bed for a fortnight at each menstrual period, and in which the monesia brought back the discharge to its healthy standard. Lastly, M. Payen has succeeded in cicatrizing an ulcer in the lower jaw, which, for ten months, had resisted every kind of treatment, both internal and external; and in healing ulcerated chilblains, by means of the ointment and the powdered extract of monesia.

Thus we see that monesia has been employed both externally and internally. It has been frequently administered during the chronic stage of bronchitis, usually alone, but sometimes combined with opium, and in the greatest number of cases it has seemed to act advantageously upon the disease, the expectoration and respiration being rendered more easy.

In many cases where pulmonary hemorrhage was prolonged, having resisted various and generally efficacious remedies, the extract of monesia has stopped the spitting of blood.

In weakness of the stomach monesia has a favorable influence on digestion, and secondarily on nutrition. This medicine has also been very beneficial in chronic enteritis; it has chiefly succeeded against diarrhœa, from whatever cause it arose.

The efficacy of monesia taken internally has been less marked in leucorrhœa than in diarrhœa, yet it has been useful in the majority of patients who have taken it; but injections have been more advantageous.

In every case of uterine hemorrhage where monesia has been given, it has succeeded in moderating and suppressing the discharge more readily than the other remedies which had been previously used.

Monesia has also been of great advantage in scorbutic and scrofulous affections, and

has always benefitted ulcers of a bad character, whether the ointment, or the pure extract powdered, or the acrid substance contained in it, has been employed.

Such is the compendium of the cases hitherto published, with the exception of four by M. Forget, which are the basis of the article that he has published in the *Bulletin Therapeutique*, and which, as he says himself, neither tell for nor against monesia.

We may say, therefore, generally, that monesia shows its maximum of power in diseases of the digestive organs, hemoptysis, uterine hemorrhage, and ulcers of the skin, or of the mucous membranes, at their origin. A remarkable point in this remedy is, that although it is gifted with energetic powers, and has acted upon the tonsils or upon ulcerations as an active stimulant, it has never irritated the stomach as tonics, properly called, often do. In order to form a due estimate of its relative activity, we must not forget that it has always been employed after the exhibition of other remedies.

I now come to my own cases, the general results of which may be stated as follows:—

Monesia, when exhibited internally, in the dose of from 75 to 125 centigrammes (14 to 23 grains) of the extract daily, for eight or ten days, whether in the form of pill, tincture, or syrup, has an immediate effect upon the digestive passages, and quickens the action of the stomach in a very remarkable manner. If the dose of the remedy is pushed to four grammes (74 grains) of the extract daily, for fifteen or twenty days, the appetite increases, but the patients sometimes experience a feeling of heat in the epigastrium: tenesmus and obstinate constipation may also come on; hence its action upon the digestive tube should be moderated by diminishing the dose according to the effect produced, and administering emollient or laxative clysters, as may be required.

Monesia ointment may be employed externally, upon sores, in every case, but with more or less success, according to circumstances: thus I have seen it succeed in large and excessively painful ulcers, arising from the action of blisters, in sores produced by burns, in varicose ulcers and old wounds; in a word, whenever the sore is painful, and depends on a merely local affection. When this is not the case, and the ulcer is kept up by syphilis, scrofula, scurvy, or cancer, it is impossible to effect a permanent cure by merely applying the monesia ointment, washing the sores with the tincture, or sprinkling them with the extract or acrid principle contained in it. Yet, by employing these different preparations in a proper manner, we may hope to modify the sores, and even to cure them for a time. Generally speaking, the ointment, when applied to a sore, calms the local pain; the tincture thus used, produces a sensation of heat, which ceases immediately; the powdered extract more or less excites the sore, and the acrid principle in powder, when well prepared, has a special activity greater than caustic: hence it is a powerful remedy against fungous or atonic ulcers of a bad appearance; but as soon as these sores become painful, and especially when they are covered with a whitish pellicle, the use of the acrid principle should be discontinued; for it is usually this pellicle which, by preserving the surface of the sore from contact with the air, and perhaps by becoming partly organized, produces cicatrization.

I have said expressly, that it is impossible to obtain a lasting cure of syphilitic or cancerous sores by the mere external use of this remedy; in such cases, therefore, we must have recourse to a specific treatment capable of acting on the system. I have found that in order to effect the cure of scrofulous ulcers, the monesia must be employed internally, for five-and-twenty or forty days, aud even longer, according to the case; and this in large doses, such as four or five grammes (74 or 92 grains) of the extract daily, in the form of pill, tincture, or syrup. In this way I have succeeded in curing or benefitting several scrofulous patients. Here follow two remarkable examples:—

Case I.—A young man of 17, a printer, born of very healthy parents, came to see me in February, 1839, to have the little finger of his left hand amputated. On looking at the diseased parts, I saw it was a scrofulous affection of only eight months' standing.

The first phalanx was much swelled, the soft parts covering it were livid, and there were three fistulous openings in the skin; two corresponding to the dorsal part of the phalanx, and the third to its palmar surface. They were surrounded with callous vegetations of a brownish color, and communicated with one another by means of subcutaneous fistulous passages. By introducing a blunt probe into the sores, it was easy to reach the bone of the finger, and to ascertain the detachment of the skin and the caries of a portion of the phalanx. The suppuration was serous, yellowish, of a faint odour, and contained some flakes of a substance which seemed carious. Strong pressure of the diseased tissues, occasioned hardly any pain. On the back of the hand and the left elbow there was also a swelling of the skin and of the subjacent parts, looking like the little finger. The swelling and livid patch extended from the elbow to the inside of the bend of the arm; its centre was ulcerated and covered with a thick crust, which, according to the patient's report, was renewed every two or three days.

I began by sprinkling the acrid principle of monesia on the small sores of the finger. After some day's dressing, the swelling of the soft parts began to diminish, and at the end of about twenty days the fistulous openings entirely closed. The diseased tissues at the back of the hand then ulcerated, and the acrid principle being employed as abovementioned, in a few days a cure was effected. There remained only the sore upon the elbow, which had been purposely dressed with cerate. It continued to suppurate, and to be covered from time to time with a fresh crust.

The patient was in this state when I presented him to Dr. Bally, who had been commissioned by the Academy to report on the effects of monesia. The affection appeared to him to be evidently scrofulous, and the result obtained to be very satisfactory. The disease, however, soon reappeared; the fistula of the finger began to suppurate again; there was swelling and livid redness of the soft parts, with engorgement and induration of the back of the hand; the sore on the elbow became larger and deeper. The patient now entered the hospital of St. Louis, where he had internal medicines as well as fumigations, sulphurous baths, &c. In a month he came out with the diseased parts in a worse state than ever. I now prescribed the internal use of monesia—namely, twelve pills, each containing 20 centigrammes (3½ grains,) and two spoonsful of the tincture. The sores were dressed with common cerate. Under this treatment the patient was cured in thirty-five days. Nevertheless he continued to take five pills a day till the fiftieth day.

Since July, the diseased parts have been constantly improving, and a lasting cure may be hoped for. It is right to state, that in this case the preparations of monesia did not cause tenesmus or constipation, although the patient did not employ any purgative; the only thing he complained of was too much appetite.

Case II.—M——, ætat. 40, who had always enjoyed perfect health, came to France two years ago, and perceived, in the month of April, 1839, that he had an indolent tumor in the left inguinal region. Several physicians of the capital were consulted, and they ascertained that it was a swelling of one of the superficial lymphatic glands, situated in the bend of the groin. On the 21st of the same month, I was also consulted by the patient. The diagnosis was not difficult, but the point was to know how the tumor would turn out. My prognosis was favorable, like that of all the other physicians, excepting M. Lisfranc, who thought that the swelling of the gland, though slight, depended on a general affection. On the 2d of May the groin continued to swell, and from that time all the other glands of that part, as well as of the left iliac fossa, swelled considerably; and this was soon the case with those of the opposite side. Twenty pages would scarcely suffice to tell all that was prescribed by the physicians, and patiently submitted to by M. ——. No remedy was of any use, except for a short time; and I therefore proposed monesia, in the dose of 150 centigrammes (28 grains) of the

extract a-day. The patient was at this time extremely weak, ate but little, and was feverish every day. In a week, digestion had improved; there was a sensible increase of strength, and no fever. The sores were dressed with the monesia ointment. In consequence of these results, I tried to augment the dose of the medicine, and, besides the extract, the patient took two spoonsful of the tincture, and from four to six of syrup in an infusion of hops. As to the sores, which obviously grew better, the same dressing was continued morning and evening, and every thing promised a speedy cure, when constipation and a most painful tenesmus came on, which obliged us to suspend the treatment. In a few days the sores became larger and larger, fungous, and of a bad appearance.

The dressing was then changed—extract of monesia in powder and the tincture being employed; but these remedies were almost as useless as a host of others which were successively tried. It then seemed clear to me that the internal use of monesia had alone produced the improvement, and its use was accordingly resumed, taking care to make laxatives a part of the treatment. For this purpose the patient had two glasses of Enghien water every morning, and an emollient clyster. In a fortnight the good effects of the monesia were again perceived; and this was the more to be attributed to its internal use, as the dressing had been performed with simple cerate.

At present, the swelled glands of the groin are softening and disappearing, without any suppuration. Those of the iliac fossa are diminishing in size; the sores have cicatrized, and the disease, far from attacking the lymphatic glands of the other parts of the body, as is commonly the case, is localized, and is much lessened. The patient eats with a good appetite, sleeps well, and takes exercise three hours a day, which makes us hope for a fortunate termination of the disease.

Another result which I have obtained from the use of monesia, and which has been observed by other practitioners likewise, is its action upon the uterus in cases of metrorrhagia. I will give two instances:—

Case III.—Madame ——, of a plethoric constitution, was attacked, after the catamenial period, with a flooding, which obliged her to keep her bed and seek for advice. After having employed cold drinks, ligatures on the limbs, cupping-glasses, and other revulsives, without success, I made the patient take five monesia pills, each containing 20 centigrammes (3 grains and 3-5ths.) The next morning she was very weak; the skin burning, the pulse scarcely perceptible, the face pale, and the eyes sunken. She had shivering fits from time to time, a sensation of weight in the loins, transient colic pains, and headache, with sleepiness; and what was more, the hemorrhage did not diminish. I then prescribed twelve pills of extract of monesia to be taken every hour. The discharge stopped the same day, and never returned.

Case IV.—Madame ——, aged 20, who had been married six months, had frequent pains in the loins; and in a few days a flooding came on, which obliged her to keep her bed. The hemorrhage increased, as soon as the patient got up; there was no pain in the abdomen, and no constipation; the pulse was weak and irregular, and from 76 to 80 in a minute. Revulsives, cold and acidulated drinks, clysters of cold water, and compresses dipped in iced water and applied to the thighs, had no effect. The ergot of rye was then employed, but as this excited vomiting, it was discontinued, and pills of the extract of monesia were ordered to be taken every hour, until an effect was produced. After fourteen pills the hemorrhage ceased. The patient then took cold broth at intervals, and in spite of the lightness of this food, the discharge returned in the evening with violence, and again ceased after the exhibition of ten monesia pills.

On the following day, the dose of the medicine was diminished to 75 centigrammes (14 grains,) and in six days the patient was quite well.

Quite lately, I employed the acrid principle in powder, in the dose of 15 centi-

grammes (2 grains and 7-10ths,) taken in a prune; it was to stop a uterine hemorrhage, which had suddenly come on during the night; the discharge ceased the same day. But as this case stands alone, additional facts are necessary to prove the power of the acrid principle under such circumstances. In every case, monesia acts in a remarkable manner upon the uterus, when it is not in its natural state. This new medicine may be used in different ways, and it acts on different organs, particularly when they require to be strengthened without too much excitement.

This is confirmed by the following passages from M. Buchez:—

"I have tried the extract of monesia," says this skilful practitioner, "in different affections of the mouth, particularly in inflammation of the gums, and uniformly with advantage. Its application produced a good effect, by almost instantaneously soothing the pain, which often accompanies inflammation. This mode of treatment I have found very successful in the scorbutic swelling of diseased gums, and it has removed affections which had previously resisted other remedies. When caries of the teeth is attended with pain, the application of monesia is sure to remove it in a few moments."

When all the ascertained facts are compared together, one is struck by the very peculiar tonic action of monesia on every organ. As its powers have been tried in more than four hundred cases, we may be allowed to consider monesia as a very useful remedy, under several circumstances, particularly scrofulous affections and uterine hemorrhage. Hence the art of healing was made a real acquisition; nor is it to be imagined that this tonic has any analogy with those already known, quite lately a tannin ointment, and monesia ointment were tried and compared with each other, and the advantage was on the side of the latter. Moreover, it is clear that every medicine acts in its own way, and that there can not be two whose special effects are the same. Well-informed practitioners know that one purgative can not be indifferently substituted for another; that every narcotic has not, in the same degree, the power of soothing and producing sleep; that the action of the various tonics is also very different; and that the general effects of medicines are like the differences of faces; many resemble each other at the first glance, but none can sustain an exact comparison.—*Lond. Med. Gaz.* from *Gazette Medicale de Paris.*

Tannin in Hemoptysis.

The superiority of pure tannin over the substances which contain it in greater or less proportions, was pointed out three or four years since by M. Cavarra. (See American Journal of the Medical Sciences for Nov. 1837, p. 223.)

It appears from the *Journal de Med. et de Chirurg. Prat.* (Nov. 1839,) that this substance has more recently been employed in hemoptysis by Dr. Amedee Latour, who highly extols its efficacy in that disease. In one case in which other astringents had failed, it perfectly succeeded; and in three others it was equally successful, but in these last the hemorrhage was slight.

He employs the following formula: ℞.—Tannin. puræ, gr. iv; Pulv. gum Arab. gr. xvi; Syr. simp. q. s. Misce.—Ft. pilul. No. viij. Four to be taken daily (one at a dose at intervals of three hours) for two days. This article occasions constipation which must be removed by enemata.

On the Employment of Sea Salt (Chloride of Sodium) in Pulmonary Consumption, Scrofulous affections, &c.

M. Amedee Latour was first induced to give a trial to this remedy in phthisis, from its reported efficacy in preventing or curing pulmonary complaints among the lower

animals. A great mortality prevails amongst the apes and monkeys confined in menageries, chiefly from pulmonary complaints; and the proprietor of a menagerie found, that by the free use of sea salt, he was enabled to preserve these animals in health for seven or eight years; and, even after a cough had manifested itself, the administration of the salt was followed by a rapid cure.

M. Latour relates three cases in the human subject, in which the administration of salt appears to have been followed by the happiest results. In one of the cases, the disease had gone so far, that there was distinct cavernous rattle with pectoriloquy, mucopurulent and purulent expectoration streaked with blood, great emaciation, hectic fever, &c. and yet the patient made a perfect recovery at the end of a few months, the sea salt having been given uninterruptedly for sixty days.

M. Latour directs a particular regimen to be followed during the treatment.—The aliment should consist almost exclusively of beef or mutton grilled or roasted, of good rich soups, or animal jellies. The patient should partake of these in small quantity at a time, but often, and should drink a little good old wine, diluted with water. Every fine day, when the sun shines, and during its warmest period, the patient should take gentle exercise in the open air; and his chamber should be well aired twice or thrice a day. Flannel is recommended to be worn next the skin.

The mode of administration of the salt is as follows: Half a drachm to a drachm of the chloride of sodium is administered daily, either in a glass of beef tea, or in some pectoral infusion, or if this should excite cough, it may be given in divided doses made up into bread pills, drinking a little beef tea afterwards. It is best to commence with small doses, as the sudden introduction into the system of such a powerful stimulant, is apt to be followed by congestions of blood in the digestive organs or lungs. A few cresses are recommended to be eaten once or twice every week, after having been well sprinkled with common salt, but no vinegar or oil is allowed with them. To relieve the pains in the chest, and the burning sensations of which the patient complains, instead of the usual pectoral drinks he prescribes the following: Carrots are to be well boiled in a moderate quantity of water; they are then to be well beaten, and passed through a sieve. The fluid which passes through is then mixed with fresh milk, sweetened with a small quantity of sugar, and flavored with orange peel. This compound the patient drinks at his own discretion. In general some thirst is at first caused by the administration of the sea salt, and for this M. Latour directs a weak infusion of gentian flavored with orange-peel. *Edin. Med. & Surg. Journ.* from *Gaz. des Medecins Practiciens*, 1839.

Case of Scrofula cured by Chloride of Sodium.

M. A. Latour adduces the following case in illustration of the efficacy of sea salt in the cure of scrofula.

A girl, 13 years of age, of lymphatic temperament, suffered, for more than a year, under scrofulous symptoms; the sub-maxillary ganglia were greatly enlarged, and the upper lip was the seat of an extensive scrofulous ulceration, for which a variety of remedies had been tried during eleven months without benefit.

On the 9th of April, a drachm of sea salt was given in soup, and ordered to be continued daily. The sore was washed with salt water, and the diet was confined entirely to animal food. The re-action produced by the salt was so great that the dose was diminished by one-half, and then continued at that dose. The child took frequent exercise in the open air. Towards the middle of May the ulcer was healed, and in fifty days a complete cure was obtained. M. Latour recommends that the salt should be given in flour, made up in the form of a little French roll.

Thus a drachm of salt, dissolved in a small quantity of water, may be mixed with four ounces of flour. Children will readily eat one or two of these rolls in the day.—*Lancet*, from *L'Experience*, Jan. 9, 1840.

Ileus cured by Injection of Air.

Several cases illustrative of the value of the injection of air, in the treatment of Ileus, have been given in this Journal, and the following from a recent Number of the *Medicinische Zeitung* (No. xxx. 1839,) may be adduced as confirmatory of the same fact.

A cuirassier, who suffered occasionally from colic, had a very severe attack in the beginning of August, 1838, in consequence of having eaten very freely of raw bacon, and afterwards drinking cold water. Vomiting ensued, but without relief to the pains, which continued to return in the umbilical region with considerable violence. Symptoms of decided enteritis followed; the vomiting became more severe and fecal; and the obstinate constipation of the bowels could not be overcome, even by the administration of pure mercury. In this state a quantity of air was thrown into the large intestines, and copious evacuation of the bowels followed with instant relief of all the symptoms, the constipation having lasted for eleven days.—*American Journ. Med. Sciences.*

Belladonna in flying Rheumatic pains. By Jonathan Osborne, M. D. of Dublin.

There is one property of Balladonna, which I mentioned in a medical report of Sir Patrick Dun's Hospital in 1831, and which it has proved itself to possess in every instance, without exception, since that time; so that it is unnecessary to detail cases on the subject. It is this, that it causes an immediate cessation of the migratory or flying pain of rheumatism, without producing any effect on the fixed pains. In this way it acts like a charm both in acute and chronic cases, and when it is recollected that in acute rheumatism, especially, the greater part of the suffering, and that most refractory to ordinary treatment, is the perpetual shifting of pain along the direction of the muscles from one joint to another, its value in all such cases will at once be admitted. The dose I give is one-third of a grain, thrice daily, increased to half a grain every third hour.—After trying various combinations, I prefer to give it in simple extract of gentian, as much as is sufficient to secure its accurate division into pills. Having observed its efficacy to be confined to the pains shooting along the direction of the muscles, and that any abatement of pain which it produces in neuralgia, or where the pain pursues the course of the nerves, is of a very inferior degree, and attended with great uncertainty, it appears to me that it acts on the muscular fibre belonging to the voluntary muscles, as on the iris, and by stopping the spasm which is always present in severe cases, causes a cessation of the peculiar pain. This kind of pain always resembles fatigue, causing general restlessness and inability of remaining long in one position; and suggests very much the sensations experienced after excessive muscular fatigue, when the spasms, not of entire muscles, but of fibres, prevent sleep, while at the same time they produce a feeling of intolerable weariness.—*Dub. Journ. Med. Sci.*

Action of Ergot applied externally—its power in arresting hemorrhage.

Samuel Wright, Esq., in an elaborate memoir on the physiological action of ergot in the *Edinburgh Medical and Surg. Journal*, states that "when applied to the sound skin, ergot does not appear to produce any sensible effects whatever. I have kept it in a

state of moisture, in contact with the inner side of a dog's thigh, (the part having been previously shaven, and well-washed with soap and water;) and repeated it night and morning for a fortnight without occasioning any perceptible alteration in the part, save a little redness. I have also worn it in a similar state, in contact with my own arm, for more than a week together, and have felt no inconvenience from its presence.

"Applied to an abraded surface, however, it gives rise to profuse sloughing. I have tried it upon wounds nearly healed, and in less than twenty four hours they have discharged purulent matter abundantly. The matter has generally been of a very offensive nature, and the wounds thus treated, have, even under the application of proper curative means, been long and tedious in healing. In the form of powder it is very serviceable in arresting hemorrhage. Its mechanical influence has doubtless some share in the effect; but it does not entirely depend upon it, for the efficacy of flour, or any similar material, is not nearly so great. I have tried many comparative experiments, and have found the ergot succeed, when other simple powders have failed.

"Even in the form of infusion, it has the power of arresting hemorrhage in an extraordinary degree. Whilst trying my experiments upon dogs, I repeatedly observed a subsidence of bleeding from the divided vessels of a wound, after a solution of ergot, from entering a vein with difficulty had trickled over the part. But I was not led to an investigation of the circumstance, until I saw a report of some interesting experiments upon the subject by Dr. Muller.

"He divided the popliteal artery in a sheep, and completely arrested the bleeding with lint dipped in an infusion of ergot. The caudal artery of a horse was cut, and the bleeding similarly subdued. The anterior crural artery was also divided, and its stream of blood with equal facility arrested.

"To these experiments I may add, that I have several times divided the external jugular and the *vena saphena major* veins; and have never failed to arrest the hemorrhage by an infusion of ergot; though with arteries I have generally been less successful. And in the greater number of my experiments, I have used a dilute solution of ergot in the place of warm water, to sponge the incised parts, and have always succeeded in preventing that continued flow of blood, which is often a serious obstacle to the safe direction of the knife.

"As I have never found any impediment to the healthy union of parts treated with an infusion of ergot, I have no hesitation in advising it as a valuable means of preventing the troublesome hemorrhage from small vessels, in the course of surgical operations.

"And upon the same principle, I believe the injection of a similar solution into the uterus, in cases of flooding, will be found to answer every practical end that can be wished for."

Utility of Nux Vomica in various Forms of Paralysis.

M. Petrequin, one of the surgeons of the Hotel Dieu, at Lyons, has recorded his experience of this powerful drug, in an elaborate and very practical paper in a recent number of the Gazette Medicale.

He employs it both internally and externally. He prefers the alcoholic extract—prepared with two pounds six ounces of the grated nuts, and 22 pints of alcohol—to the strychnine for internal use; beginning with the eighth part of a grain for a dose, and gradually increasing it to two, three, or even five grains in the course of the day.

For external use, the strychnine is, as matter of course, to be preferred.

M. Petrequin alludes to the frequent failure of the endermic use of strychnine, owing to the vesicated surface, to which it is applied, becoming covered with a layer

of coagulable lymph. In consequence of this, the strychnine is not duly absorbed. This layer of lymph should be removed as well as possible at each application; but, as the vesicated surface becomes daily less and less absorbent, the dose of the strychnine must be proportionally increased. The mode which M. PETREQUIN recommends, is to sprinkle a third or fourth of a grain of the alkaloid, mixed with two or three grains of the powdered nux vomica itself, on the surface, which has been vesicated by means of the *pommade ammoniacale*.

Along with the use of the strychnine in this way, he employs a tincture of the nux vomica—prepared with four ounces of it in powder and one *litre* of brandy—as an embrocation to and around the palsied parts.

M. PETREQUIN has related several cases of, more or less complete, *hemiplegia*,—which were either quite cured or greatly relieved by the use of the nux vomica.

In all of them, the muscles of the palsied parts became affected with sudden involuntary twitchings, and the patients experienced electric-like shocks in different limbs, before the complete recovery of their lost powers.

Four cases of *paraplegia* also, in which the strychnos seemed to act most beneficially, are recorded.

In the first of these cases, the paralysis was the result of a severe injury of the back from a heavy log of wood falling upon it. For three months, the patient had been confined to bed, when M. PETREQUIN first visited him. Although the sensibility and motility of the inferior limbs had begun to return, and the general health of the patient to be somewhat re-established, he was still so helpless that he could neither stand, nor even support himself sitting in bed. There was also a complete incontinence* of the urine, so that it was continually escaping drop by drop, and, to add to his distress, an ulcer had formed over the sacrum.

A large vesication over the loins was raised by means of the *pommade ammoniacale*, and the excoriated surface was then sprinkled with a fourth of a grain of strychnine, mixed with three grains of powdered nux vomica: this was repeated every day.

Within a week a very decided amendment was visible; for not only was he able to sit up for some time, but he also began to retain his urine to a certain degree.

A fresh blister was twice repeated within the next fortnight, and the dose of the strychnine was raised to half a grain.

By this time, he was able to walk a little with the assistance of a stick, and he could now hold his urine for two hours at a time. The treatment was persevered in for some weeks longer, and ultimately the patient quite recovered the use of his limb, and command over his bladder. No preparation of the nux vomica was administered internally.

In the next case, the *paraplegia* was connected with a gibbosity of the dorsal vertebræ in a youth 19 years of age, and was accompanied with a retention of the urine.

Three small caustic issues were made on each side of the projection; and two pills, containing each a quarter of a grain of the alcoholic extract of nux vomica, were admin-

* For the first three weeks after the accident, there was a retention of the urine, so that it required to be drawn off several times in the course of the twenty-four hours: it was very sedimentary, and occasionally almost as white as milk.

* M. PETREQUIN mentions that he has treated successfully many cases of nocturnal incontinence of urine occurring in children, with the tincture of nux vomica, as an embrocation to the loins and perineum. Another method, to which he has sometimes recourse, consists in the introduction into the rectum of a seton or thick skein of thread well smeared over with a cerate of nux vomica.

In the *Archives Generales*, for January, 1836, several successful examples of the internal use of the medicine are related.

istered daily. The dose was gradually increased, so that at the end of the third week, the patient took three grains daily of the extract. By this time, the bladder had recovered in a great measure its contractility, and the patient was able to stand with the support of a stick. The treatment was steadily persevered in for some weeks longer; the dose of the medicine had been increased to seven grains daily, and the recovery was so steadily progressive, that, at the end of two months from the commencement of the use of the nux vomica, the patient was able to run about the ward of the hospital.

Several cases of *local paralysis*, as of one or more of the fingers, of the deltoid muscle, &c. treated successfully with the nux vomica—either in the way of frictions with the tincture, or of the endermic use of the strychnine, as explained above—are then detailed by M. Petrequin.

Local *anæthesia* also, or loss of sensibility in a part, has in numerous instances yielded to the use of embrocation with the tincture.

A woman, 46 years of age, had for four years been effected with a complete loss of sensibility along the outer half of the left thigh: she dreaded the cold much, and experienced now and then sharp pains in the part, which felt to her to be quite dead. After the application of a few leeches, the tincture of nux vomica was rubbed on the part night and morning. In the course of a week the *anæthesia* had quite ceased.

Lastly, several cases of amaurotic blindness, which were decidedly and quickly relieved by means of friction over the temples with the tincture of the nux vomica, are detailed at length. It is unnecessary to mention the particulars of these cases, as they are all more or less like each other. Suffice it to say that the remedy is useful only when the amaurosis is simple, and uncomplicated with an inflammatory or congestive state of any of the tissues of the eye.—*Gazette Medicale.*

Application to Blistered Surfaces.

Sir Benjamin Brodie employs the following preparation as an application to blistered surfaces when they become irritable and painful; ℞. Creta pp. Ol.Oliv. āā ℥v; Aq. Ros. ℥ij.—*Lancet.*

Dupuytren's *Pommade for Baldness.*

The following formula for the preparation of this well-known pommade was recently sent by M. Fontaine, a respectable *Pharmacien* in Paris, to the Journal de Pharmacie.

Take of—Beef-marrow	128 gram.
Calomel (prepared by vapor) . . .	10 gram.
Alcoholic extract of cantharides . . .	1 gram.
Essence of roses	4 drops.

Mix well together.

It would seem that Dupuytren was, as indeed might be expected, in the habit of varying his formula.

Thus the following two also may be received as authentic.

Take of—Oil of beef-marrow	2 ounces.
Alcoholic extract of cantharides . . .	8 grains.
Rosate oil	1 drachm.
Essence of lemons	4 drops.

Mix.

Take of—Beef-marrow	1½ ounce.
Yellow wax	2 drachms.
Rosate oil	1½ ounce.
Aqueous Extract of Cantharides . .	24 grains.
Essence of cloves	4 drops.

Mix.

Useful application to Chilblains.

The following application is strongly recommended to relieve this troublesome affection.

Take of—Balsam of fioraventi	℥ij.
Solution of acetate of lead . .	℥iij.
Olive oil	℥iij.
Hydrochloric acid	℥j.

Shake them well together.

The affected parts are to be rubbed once or twice a day with this embrocation; and a piece of silk paper, moistened with it, should be kept constantly applied. The strength of the embrocation may be easily increased or diminished by varying the quantity of olive oil used in preparing it. When the chilblained skin has become chapped and ulcerated, the embrocation is to be applied only to the surrounding skin, and the little wounds should be dressed with laudanised cerate, to which we may sometimes add with advantage a portion of tincture of benzoin.—*Bulletin General de Therapeutique.*

On the influence of Digitalis on the Contractions of the Uterus. By M. Piedagnel.

The object of this paper is to recommend, from theory and from a limited practice, the administration of digitalis in false labor pains. The cases in which it has been found most useful are those in which during gestation there are vague pains in the uterus producing considerable suffering and fatigue, and those in which after delivery the pains continue for an unusually long period, for example, for more than two or three hours after the expulsion of the placenta. In these and in certain other cases in which it has been a common custom to administer opium, the author suggests that digitalis should be employed, which he believes acts by diminishing the force and frequency of the contractions of the uterus, as it is well known to do those of the heart. He has generally used an infusion of one fresh leaf or of two dried leaves in a cup of water, which is taken at once, or a drink, containing from thirty to sixty centigrammes of powdered leaves, of which the patient takes a spoonful every half hour or hour till the pains cease.—*Brit. and For. Med. Rev.* from *Bull. Gen. de Therap.* Jan. 1840.

M. Cazenave *on Scabies.*

The following extracts are from a lecture which M. Cazenave recently delivered at the hospital St. Louis, to which, it is well known, by far the greater number of patients affected with cutaneous diseases in Paris are sent.

"With respect to the seat of, or the parts of the body most frequently affected with, the itch, it is right to observe that certain conditions and occupations of life, under the influence of which the disease is apt to be developed, induce varieties which deserve to

be noticed. Thus in smiths and dyers we rarely observe the scabious eruption on the wrists or between the fingers; whereas these are just the parts which are almost always affected in tailors and semstresses—who constitute a large portion of itch-patients admitted into the Hospital St. Louis. M. CAZENAVE has never seen the face affected with the disease."

. . . . . "When the disease is left to itself, more especially in young plethoric persons, it is apt to become complicated with other forms of cutaneous eruption—most frequently of the impetiginous or ecthymatous character. It is from not being aware of this complication, that some writers have described scabies as a pustular disease."

. . . . . "It is now universally admitted that the proximate cause of the itch is the presence of an animalcule—the *acarus scabiei*. It is well known how frequently the truth of this idea has been questioned. The cause of the difficulty of detecting the insect was first explained by M. RENUCCI in 1834, who showed that it is seldom found in the vesicle itself, but generally in the groove of the skin leading from it, and which the insect itself makes under the epidermis."

. . . . . "*Diagnosis.*—Every medical man knows well the occasional difficulty in determining whether certain cutaneous eruptions are truly scabious or not. This is the more annoying, as the appropriate treatment depends on the correct diagnosis of the disease; an error in this respect may be followed by the most troublesome consequences. Scabies may be confounded with some of the forms of *eczema*. In the latter disease, the vesicles, even when they are situated in the fingers and on the inside of the arms, are flattened on their summits, and not pointed as in the vesicles of genuine scabies; likewise, they are more congregated together, they appear on the back of the hand as well as along the line of the flexture of the joints; the pruritus too accompanying *eczema* is more of a burning or scalding character, and not subject to those exacerbations so characteristic of the genuine itch.

Herpes appears in patches, and can scarcely be confounded with *scabies*.

Prurigo is not so readily distinguished. Apart however from the primitive characters of the eruption, it in most cases affects chiefly the back, shoulders, and the limbs, rather along the line of extension, than along that of flexion.

The papulæ exhibit at their apices a blackish crust: and the itching, though troublesome, is never comparable to that of genuine scabies.

But we must acknowledge that in some cases, it is impossible to discriminate with confidence the exact nature of the eruption."

. . . . . "It is not unfrequent to observe in persons, who have been affected with scabies, a vesicular eruption returning every year, especially during warm weather. This affection is not strictly scabious, nor is it contagious. It does not therefore require the specific treatment necessary in itch; and very generally it will disappear under the local application of cooling washes."

. . . . . "*Treatment.*—The ointment generally used by M. BIETT is one of the best. It consists of two parts of sulphur, one of subcarbonate of potash, and eight of lard. The lotion of DUPUYTREN—composed of four ounces of sulphurate of potash, a pound and a half of water, and half an ounce of sulphuric acid—will often succeed where the patient is unwilling to rub in the sulphur ointment. It has however the twofold disadvantage of being very irritating, and very offensive to the smell.

One or two brisk doses of a cooling purgative will always be useful. No other internal medication is necessary."—*La Lancette Française.*

Poisoning with Nitrate of Silver, cured by solution of Common Salt.

A VERY interesting case of this recently occurred at the Hospital Saint-Louis. The patient, a man ætat. 21, stated after his recovery, that he had swallowed, an ounce of the nitrate of silver in solution. This quantity was probably exaggerated, nevertheless he must have swallowed a large quantity from the extreme violence of the effects, and the matters which the patient vomited 12 or 18 hours afterwards blackened the sheets and curtains of the bed, wherever it touched them. When brought to the hospital, June 23, the patient was insensible and there was insensibility of every part of the body; convulsive movements of the face and upper limbs; jaws firmly closed; eyes rolled up; pupils dilated and insensible to light. A solution of salt and water was freely given. After the lapse of an hour and a half, the pupils became less dilated, and the convulsions and closure of the jaws ceased. The salt water was continued for eight hours, when emollient drinks were substituted. At this period the insensibility was less profound, and the patient suffered from violent pains in the epigastrium. It was not, however, until eleven hours after his entrance that the general sensibility returned and the patient was able to speak. Some hours afterwards, profound coma, with insensibility returned and continued for two hours; and the next day, and the day after he had a similar attack. After this, convalescence proceeded uninterruptedly, and he was discharged well, June 29th.—*Bulletin Generale de Therap.* Sept. 1839.

Deaths by Poison.

A VERY interesting report made to the House of Commons at the instance of Sir ROBERT INGLIS, has recently been published. It is entitled "Returns from the Coroners of England and Wales of all Inquisitions held by them during the years 1837 and 1838, in cases where death was found, by verdict of Jury, to have been caused by poison." These returns it must be premised are not complete, some coroners having neglected to comply, with the request of the Commons, and those who have complied having in many instances omitted particulars of great moment; notwithstanding these imperfections, the document is valuable, and the public not only of England, but of this country would be benefitted by its extended publication. We can give, only, a summary of the more interesting points.

The total number of deaths by poison, 1837-38 was 543, of which 261 were females, and 282 males.

The total number of individuals poisoned by opium, or its preparations, was 186.

The deaths of very young children (most of them at the breast,) from opium, or its preparations, administered by mothers and nurses, in ignorance of the powerful effects of those substances on infants, were 52.

The deaths of young children from opium or laudanum administered in mistake for other medicine, were 20. In 11 of these cases, the names of the medicines are given, in the place of which opiates were given by mistake.

The very great number of deaths amongst children, resulting from overdoses of opium, or its preparations, and from doses thereof given in mistake for other medicines, cannot fail to excite attention. Deaths of this kind amount nearly to a seventh of the entire number of deaths by poison. The number was 72!

Most of the children poisoned in this way *lost their lives* owing to the ignorance, carelessness, or presumption of *their mothers.* It cannot be too generally known that narcotic and anodyne drugs, powerful though they be in the adult, act with infinitely greater energy upon the more sensitive nervous system of the infant; so that even experienced

medical men never administer remedies of this class to the very young, without exerting the utmost caution and making the most accurate calculation. Two drops of laudanum have been known to kill an infant, nay, we heard of a case in which *one* drop stole away the life of a new born babe. It is evident that the practical inference to be deduced from the facts represented in the above table is—*that mothers and nurses should never dare to administer medicines of the narcotic kind, except under the immediate direction of the medical attendant.*

The Coroner of Nottingham states, that "Godfrey's Cordial is given to children to a great extent; and that he has no doubt whatever, that many infants are yearly destroyed in that borough, but who, dying off gradually, never come under his notice officially." There can be no doubt of the truth of this assertion. At all events we can say positively that such instances occur elsewhere.—*Lond. Med. Gaz.* Nov. 1839.

On the causes of Scrofulous diseases.

M. Lugol is of opinion that accidental causes have no necessary effect, and that there is at least reason to doubt whether they are of themselves alone sufficient to give rise to a scrofulous affection. Inheritence, on the contrary, is the most evident and the most common cause, and that which we are obliged to acknowledge in the great majority of cases.

M. Lugol regards the existence of scrofula in a child, as the certain sign of the family temperament, in consequence of which all the other children have the same original predisposition to the disease. If one examines what takes place in families, in which this temperament is indicated by the sign just mentioned, it is found that they are subject to great mortality: scarcely a fourth of the children attain the age of puberty, and it is not rare for very large families to be swept away at an age even much less advanced. Scrofula, in fact, presents itself as the most active source of destruction to the human race: there is no other malady whose victims are so numerous and so young.

After showing the essential characters of hereditary transmission, those which mark it, and it alone, M. Lugol passes to his inquiries on the causes of this transmission, in considering what is the state of health of parents who produce scrofulous children. He divides the facts that relate to this question into two orders; one relating to the original state of health; the other to the acquired state of health of the patients.

After having treated of scrofula in subjects born of scrofulous parents, and in those who are born of phthisical parents, he goes on to show that parents whose youth has been marked by scrofula, but who, at the present time enjoy very good health, often produce scrofulous children. He shows also that parents who do not themselves appear scrofulous, but who have brothers and sisters that are so, have often a scrofulous offspring.

M. L. has also seen that parents may never present any symptoms of scrofula till after they have had scrofulous children; and he arrives at the conclusion that hereditary diseases never pass over a generation, which is contrary to the opinion generally received on that point.

In a second section, relating to the acquired health of the parents who produce scrofulous children, he treats successively of scrofula from syphilitic parents, a question on which he has accumulated very extensive information; then of scrofula from abuse of venereal pleasure; of that from two early marriages in each extremity of the social scale; of that from disproportion in the age of the parents; and, lastly, of that of which he has collected a great number of examples, and which almost invariably arises from all the marriages in which the man doesnot possess the comparative strength of his sex. *Lond. Med. Gaz.* March, 1840, from *Comptes Rendus*, Jan. 1840.

On the Purulent Ophthalmia of Children.

The following remarks apply to that form of purulent ophthalmia which usually occurs epidemically among children of three or four years of age—a form of the disease which is very different from that which is often observed in infants soon after birth, and which, it is believed, arises from the contact of the acrid mucus of the vagina with the eyes of the infant during the process of delivery.

The former is of frequent occurrence in Paris, and is usually observed during the early months of the year. It is observed not only to attack a number of children at the same time, but also, especially in a hospital, to propagate itself from one patient to another, who may happen to be next to him—thus seeming to be contagious as well as epidemic.

It is one of the most alarming diseases of childhood, in consequence of the extreme rapidity of its progress, and the tendency there is to perforation and consequent destruction to the eye, if the symptoms are not promptly subdued. Occasionally it proves fatal; but such a termination is generally, we believe, attributable rather to the improper treatment which may have been pursued than to the mere severity of the disease itself—unless indeed the child is in an unhealthy state at the time of its seizure.

The following two cases may be aptly quoted here in illustration of this remark.

Case I.—A child, four years of age, had been suffering with a cough and purging for several days before the right eyelid was observed to have become of a purplish-red color, and to be swollen and quite closed: a purulent matter also kept oozing out in considerable quantity. Leeches were applied to the temples, and emollient washes to the eye. Four days afterwards, the cornea was perceived to be much softened, and to threaten immediate perforation. The left eyelid also had now become affected in nearly the same manner as the right one had been four days before.

The same line of treatment was unfortunately continued; and both eyes were irretrievably lost.

The constitutional symptoms did not, as is usually the case, abate; and the patient died on the 15th day of the ophthalmia.

Case II.—Two days before the death of the former child, another child in the same hospital, (Hospital des Enfans,) and who slept in the adjoining bed, exhibited the early symptoms of a similar ophthalmia. The system at this early period was not much affected. Leeches and emollient applications were used. Ultimately both eyes were destroyed from rupture of the cornea, and the escape of the contents of the balls. In this case, however, the constitutional symptoms abated after this unfortunate event, and the young patient gradually recovered.

The mode of commencement of this formidable disease is usually insidious: there being little or no fever present at first, and the eyelids only seeming to be the parts affected. These acquire a deep-red or purplish hue, and become puffy, swollen, and closed. There soon follows a copious oozing out of a thick mucous matter, which seems to be secreted almost as quickly as it is removed, and there is also an abundant flow of tears, whenever the lids are separated. Still there is neither much pain nor heat in the parts, until the second or third day, when the eyeball itself usually becomes involved, (if the disease has not been arrested,) and the constitutional symptoms are aggravated. Soon after this period, in unfortunate cases, the cornea bursts, the contents of the eyeball escape, and the eye is then irretrievably gone.

It is rare that both eyes are affected from the first at the same time; although it is very common to observe one eye to be attacked with the disease in a few days after the other.

As we have already remarked, the destructive effects of this formidable disease are,

in not a few instances at least, referrible to the erroneous line of treatment which is too frequently pursued. It is not by the use of antiphlogistic and emollient remedies that we can hope to arrest or counteract its rapid and disorganising progress. Indeed whatever has the effect of debilitating the system seems to favor, rather than to arrest, the tendency to rupture of the cornea and the consequent destruction of the eye.

Instead therefore of bleeding and other powerfully depressing measures, the employment of gastric evacuants, and especially of emetics, is greatly to be preferred. The action of vomiting is not merely to cleanse the stomach and primæ viæ of all offending matters, but also to cause a powerfully derivative action from any suffering organ to the skin, and thus determine an equable flow of blood to the entire surface of the body.

After the free operation of an emetic, which should be repeated at short intervals in some cases, a blister should be applied to the nape of the neck or to one of the arms, with the view of diverting the incipient morbid action from the eyes. A large dose of calomel may also at the same time be given; and this should be repeated at short intervals, either alone or in combination with jalap or some other purgative, so as to cause copious evacuations from the bowels. When once this is effected, the diet allowed may be generous or even stimulating, and a moderate quantity of wine may also be allowed.

As to the local treatment of the purulent ophthalmia of children, we have already observed that the use of antiphlogistic and relaxing remedies is decidedly hurtful. Not but that if symptoms, local or general, of active inflammatory action be present in a case, as occasionally happens, it may be necessary to have recourse to smart antiphlogistic measures; but such a case is of exceptional and not of frequent occurrence. But under no circumstances is it prudent to continue the use of such a practice for any length of time; all that is requisite is to remove the active symptoms; and when this is effected, no time should be lost in resorting to some powerful topical application directly to the eye. Perhaps on the whole the most useful of all is a strong solution of the nitrate of silver, of ℥ss.—℥j. to an ounce of rose water, of which a few drops are to be introduced between the lids, three or four times a day. Some surgeons recommend highly a solution of one grain of corrosive sublimate in eight ounces of distilled water as an eye-wash to be frequently applied; while others prefer a strong opiate collyrium, prepared by dissolving two scruples or a drachm of opium in a pint of tepid water. But none is on the whole so generally useful and so decidedly potent as the solution of the nitrate of silver. By the judicious use of this means, aided with the employment of calomel and emetics and the application of one or two blisters to the neck, a cure will often be effected in two, three, or four days.—*Bulletin General de Therapeutique.*

SURGERY AND OBSTETRICS.

Fungus Hæmatodes. By RICHARD GREGG, M. R. C. S. L.

THE following case of fungus hæmatodes occurred lately in my practice; the very great extent which the disease had attained before the patient would submit to amputation, shows at what a late period the operation may be performed with safety, when this frightful affection is situated in an extremity, although the state of the patient at the time scarcely warranted any interference:—

John Bell, aged 18, a sailor, discovered a swelling on the inside of his right leg, near the insertion of the patella ligament. He first noticed it in Nov. 1838, but paid little or no attention to it at the time, as the pain was trifling. The tumor increased in size very fast. I saw him for the first time in March, 1839, and on examination could feel that it contained fluid. I ordered him to poultice it. It now began to be very painful, and the motion of the joint was totally impeded. In April, I first discovered that instead of a common collection of matter, as I first expected, I had to deal with a fungus hæmatodes. The swelling now put on a livid red appearance, and was very elastic on pressure, immediately rising up after the fingers were removed. He passed sleepless nights, and had great thirst, and loss of appetite. In May he was still getting worse. The most prominent part of the tumor burst, and a large escape of thin, bloody matter took place. In two or three days a fungus projected from the opening. His constitution was evidently sinking. I now proposed amputation of the limb, as the only means of saving his life, but both he and his friends were averse to it. During the months of June, July, August and September, I lost sight of the patient, his friends having consulted a quack, who told them that he could soon perform a cure.

Four months had now gone over, and I was much astonished to find the boy still alive, having received a message that he wished to see me. On entering the room, I was struck forcibly with the change he had undergone. The tumor now extended from below the knee to the upper third of the thigh. The hamstring muscles were in a diseased state, and so great was the weight of the morbid mass, that he was obliged to have it suspended by a sling placed round his neck, as he could not lay down without the thigh being in a flexed position. Hectic fever had now set in, with a troublesome diarrhœa. Takes nothing but a little wine and a large quantity of laudanum at night, the dose of which has been increased for some time past, until nothing less than three drachms gives him ease. The pain he suffers is intense, never being free from it, unless when under the influence of opium. Seems to be sinking rapidly, and is now desirous, for the first time, of having the limb removed. From the great prostration of strength, and his general emaciated condition, as well as the extent of the disease in the thigh, rendering the operation dangerous on account of its proximity to the hip-joint, I hesitated, doubting whether that could be done to save him, as it has been often found, when this disease has reached to so great an extent, that the viscera are in a morbid state. His friends now becoming more desirous than ever for an operation, and as there appeared to be no alternative but death, and that near at hand, I consented to remove the limb, after a consultation with my friend, Mr. RAE.

The operation was performed on the 15th of October last, being 11 months from the commencement of the disease. I made an anterior and posterior flap, by the transfixing method, as practised by Mr. LISTON, and succeeded in getting a good stump, and one perfectly free from disease. Four vessels were tied; the hæmorrhage was trifling; the

flaps were brought together, and the patient, totally unconscious, having fainted early, was carried to bed, the operation having occupied in all about five minutes.

He slept for four hours, and awoke refreshed. He now improved every day; the ligatures were all away by the 21st day, and the stump entirely healed in eight weeks. The tumor, when opened, was found to contain thin, bloody matter, interspersed with cells, filled with a brain-like substance, having every characteristic of the disease as described by Hey, Burns, &c. The bones forming the knee-joint were carious. The condyles of the femur were so soft as to break down under the pressure of the fingers. The muscles of the thigh, as far as the middle, were filled with a greasy greyish substance, and the tumor, when dissected out (along with the joint,) weighed 17lbs.

I have deferred sending you this case earlier, lest the cure should be incomplete; but six months have now passed, and the boy's health is as good as he ever recollects it to have been, he being two stones heavier than he was before the disease set in, and perfectly capable of performing any duty that a wooden leg will permit. If the circumstances present an inducement to any of my professional brethren never to give up a similar case, however bad appearances may be, without an effort to save their patient, where an operation is practicable, I shall be amply gratified.—*London Lancet.*

Aneurism of the Arteria Innominata—Ligature of Carotid and Subclavian Arteries.

W. Wickham, Esq. communicated to the Royal Medico Chirurg. Soc. in May last a case of this description. The patient was a tall spare man, of sallow complexion, 55 years of age, and had followed the occupation of a sailor. He was admitted into the hospital in September, 1839, with a swelling over the right clavicle, about the size of a hen's egg, and having all the characters of aneurism of the arteria innominata. The tumor extended over the carotid artery at its lower part, reaching as high as the omo-hyoideus muscle, and also reached outwards over the subclavian artery. As it appeared impossible to place a ligature on the affected artery with success, the author, in consultation with his colleagues and Sir Astley Cooper, determined on tying the carotid and subclavian arteries. In pursuance of this resolution, the carotid was tied on the 25th of September, 1839, without any unusual circumstances. Immediately on the ligature being tightened, the sac was evidently reduced in size, and the force of the pulsation in the tumour diminished. The cough and dyspnœa, which had been prominent symptoms in the case, were also greatly and immediately relieved. At the end of three weeks the patient quitted the hospital, contrary to advice, and promised to return in a week or ten days. The tumor, at this time, was of the diminished size, to which it had been reduced at the time of the operation. Unfortunately, however, the man did not return until compelled to do so by dyspnœa, the consequence of the rapid increase of the tumour to more than double its original size. On the 3d of December it was determined to tie the subclavian artery, notwithstanding that the patient appeared to be almost at his last gasp from suffocation, so that great fears were entertained lest he should die under the operation. As soon as the artery was tied, the dyspnœa was so much relieved, that the man walked to his bed with ease, and from that time until he died, he continued free from any inconvenient pressure on the trachea. Four days after the operation he was seized suddenly with delirium, which, however, was soon relieved: from this time, the tumour slowly increased; but he recovered his strength sufficiently to wish to leave the hospital. On the 5th of February, the ligature having previously come away, he left the hospital, and lived until the 16th of that month, when he died from hæmorrhage, consequent upon the bursting of the sac. Dissection showed the disease to have been seated, as was supposed, in the arteria innominata.—*Lancet,* 6th June, 1840.

Cursory Remarks on Scrofula, Syphilis, &c. By M. MARJOLIN.

SCROFULA.—Scrofula is truly a disease *totius substantiæ* of the body; no tissue or structure is exempt from its invasion.—Its *proximate* cause is unknown; the chief *predisposing* cause is unquestionably an hereditary taint of constitution, which seems more frequently to come by the mother's, than by the father's side. It is not contagious. All ages are liable to it under some form or another: infants at the birth have exhibited lymphatic swellings, and M. MARJOLIN says, that he has seen scrofulous disease appear in old men, who had never shown any symptoms of it in the earlier periods of life.

There is often a tendency in scrofulous diseases of the *external* parts of the body to subside or disappear altogether at the age of puberty; but in numerous other cases there is a very marked disposition to it affecting, at this period of life, some of the *internal* organs, and more especially the lungs: this is of more frequent occurrence in females than in males. There is a tendency in some systems to a scrofulous swelling of those lymphatic glands, which are situated by the side of the trachea and at the root of the bronchi: in such cases the most prominent symptoms are frequently a troublesome dry cough, and a sense of heat behind the sternum, while perhaps no deviation from the healthy sound of respiration can be perceived with the ear.

The affections of the mucous tissue, which are of most frequent occurrence in scrofulous subjects, are opthalmia, otitis, coryza, angina, bronchitis, and fluour albus.

The intestinal mucous membrane is not so frequently diseased.

The fibrous, cartilaginous, and osseous tissues, are, it is well known, very liable to scrofulous action.

Scrofulous inflammation is seldom very active and acute; it is much more frequently of a sub-acute, or of a chronic nature; and, when it passes on to suppuration, the purulent matter is very different from that in a common or phlegmonous abscess.

Causes.—Besides hereditary descent, which is certainly by far the most frequent remote cause, we may mention a poor unwholesome diet, a cold moist climate,* insufficient exposure to light, the debility induced by long-continued indisposition of any sort; in short, whatever has a tendency to lower the energies of the system, whether it be of a physical or of a mental origin. That poverty of diet alone is however inadequate to excite the scrofulous mischief, is apparent from the circumstance of its being rare among the inhabitants of many mountainous countries, who, although ill and scantily fed, enjoy the invigorating influence of a pure atmosphere.

The external characters of physiognomy so to speak, of a scrofulous habit are so well known that it is unnecessary to detail them. There is, however, one or two of these characters which are less frequently mentioned, but to which M. MARJOLIN calls especial attention. One of these is an intumescence of the lower part of the abdomen: this may be caused either by an enlarged state of the mesenteric glands, or by an hypertrophy of the mesentery itself; or it may arise from an unusual prominence of the lumbar vertebræ. We may next allude to the thinness or smallness of the joints at their middle part, arising partly from a deficient development of the adjacent muscles, and partly from a preternatural fullness of the anticular condyles. There is a peculiarity in the state of the second phalanges of the fingers; they are usually observed to be swollen, and

* The influence of climate in exciting the scrofulous disposition into action is often apparent in those persons, who come from warm climates to reside in the variable regions of Europe. The lower animals too suffer in the same way: most of the monkeys, &c. in zoological collections die from tuberculous disease.

awkwardly swollen; and hence the fingers are apt to have an ugly spindle-shaped form.

Treatment.—M. Marjolin very judiciously insists upon rigid attention to the following dietetic directions: wearing flannel dresses next the skin; the use of gymnastic exercises; residence in a pure, dry, and invigorating atmosphere; bathing, especially in the sea; and a generous, but a moderate, diet.

Very active, or long-continued, depletory remedies are seldom well suited for any scrofulous ailments, even when they are attended with considerable local inflammation. The application of a moxa over a part affected with scrofulous inflammation will often relieve the complaint much more effectually and much more rapidly than the use of leeches, poultices, &c., provided there is not a feverish excitement of the system present. The continued application of heated salt to a scrofulous tumor will often succeed in dispersing it. M. Marjolin disapproves of mercurial frictions in such cases. A scrofulous abscess is not unfrequently dissipated, without breaking, by the use of one or more blisters over the part.

The most potent internal remedies against scrofulous disease are iodine and iron: these may be advantageously combined in a number of cases. The recently introduced iodure or iodide of iron is an excellent medicine.

M. Marjolin alludes to the occasional very singular development of the hair on the integuments around the scrofulous swelling. Boyer, many years ago, had remarked this occurrence in a very striking degree in patients after a phlegmonous affection of the leg, and also after a contusion; we observe it occasionally also after the application of a blister.

Syphilis and Gonorrhœa.

It has been remarked that, when the venereal poison is introduced into the system by an excoriated surface of the finger being accidentally infected, the disease usually runs a very rapid course, and is extremely difficult of cure. The period at which the constitution is commonly tainted after the development of the local disease, varies from 24 to 48 hours to ten days and upwards. The period of incubation of the local disease itself also varies considerably—from a few days to nearly a month.

M. Marjolin is of opinion that, when constitutional syphilitic symptoms follow a gonorrhœa, there has always been a chancre within the urethra.

One of the most frequent causes of gonorrhœa is a peculiar unhealthy state of the catamenial secretion. M. Marjolin describes this state as arising in the following manner. In some women menstruation takes place *en deux temps;* one of exsudation or secretion, and another of excretion. In consequence of the turgescent state of the os uteri, the catamenial fluid cannot escape, but is retained for several days within the cavity of the uterus; hence it partly coagulates, and, when discharged, it is always more or less offensive. The irritation of the vagina thus induced will often give rise to all the phenomena of genuine gonorrhœa.

M. Marjolin alludes to the occasional metastasis of gonorrhœal inflammation to the eye or to some joint, more especially that of the knee, which occasionally happens in consequence of the retrocession of the urethral discharge from exposure to cold, from over-walking, &c. The arthritic or rheumatic affection in such cases is usually violent and rapid in its progress, and very often induces a copious effusion into the cavity of the joint.*

* M. Ribes and others highly praise the internal use of the copaiba balsam in gonorrhœal rheumatism. In our opinion, the employment of antiphlogistic remedies and of mercury, should pre-

The *orchitis* or *hernia humoralis*, which not unfrequently occurs during an attack of gonorrhœa, should be regarded not so much as the *result* of the stoppage of the discharge, as the *cause* of it. M. MARJOLIN has seen an accidental attack of pneumonia induce a similar stoppage—occasionally the *vas deferens* becomes inflamed along the greater part of its course: this is usually accompanied with considerable swelling of the enveloping cellular tissue in the groin and along the abdominal canal. The tumefaction thus occasioned, may cause a constriction of the spermatic cord, which is not unfrequently accompanied with severe pain, vomiting, and the usual symptoms of incarcerated hernia.

Cases have occurred, even to such men as DUPUYTREN and ROUX, where this mistake in diagnosis was committed, and the real state of the parts was not discovered until an incision had been made upon the tumor. It is necessary therefore to use great caution in determining the nature of any painful tumor situated in the groin, when the ordinary symptoms of strangulated hernia are present at the same time.—*Journal des Connaissances Med. Chirurgicales.*

Treatment of Gonorrhœa.

M. RICORD strongly advises the application of 20 or 30 leeches to the perineum during the active or inflammatory stage of the disease. He administers the copaiba balsam at the same time: it is the *antiblenorrhagique par excellence.* Mild astringent injections are to be used, when the acute symptoms have passed away.

Alum internally used in Gonorrhœa.

DR. FRIEDRICH of Leipzig, strongly recommends the internal use of alum in the inflammatory stage of gonorrhœa. He gives a table-spoonful, three times a day, of the following mixture:

℞. Aluminis Supersulph. ℥j.
Aquæ Distillat, ℥vj.
Succi Liquir, ℥j. Misce.

In the course of a few days, under the use of the mixture, the pain and heat in passing urine and other acute symptoms abate. When this takes place, he usually adds some copaiba balsam and powdered cubebs to the mixture, if the discharge continues. He has never observed that the alum disturbs, or in any way interferes with, the action of the bowels; it usually diminishes the quantity of the urine.—*Schmidt's Jahrbucher.*

We have no experience ourselves of the effects of alum in gonorrhœa, nor are we aware that it has been used by British practitioners for the treatment of this disease. That this salt however exerts a very decided astringent power upon the urinary passages, we have more than once ascertained in cases of hæmaturia. No remedy seems on the whole to be so safe and so effectual in relieving this complaint, provided always it be unaccompanied with inflammatory symptoms.—*Rev.*

cede that of any stimulating resinous medicines. The hydarthrosis, which remains, may usually be dissipated by enveloping the joint with strips of a discutient plaster: puncture of the capsule, although practised by M. LALLEMAND, should never be resorted to.

On the Compound Salts of Iodine and Mercury in Syphilis.

M. PUCHE, physician of the Hôpital du Midi, has for some years past used pretty extensively both the iodide, and the bin-iodide, of mercury in the various forms of syphilitic disease. The disadvantage of the first of these preparations is its tendency to excite very quickly a profuse and distressing salivation. The bin-iodide is a more manageable salt, and has succeeded in M. PUCHE's practice very well, in the treatment of both the primary and the secondary forms of syphilis; its action however, he says, is very tardy. He has lately found that a combination of this salt and the iodide of potassium (the hydriodate of potash) exert much more quickly a curative power over the disease; and he recommends this compound to his professional brethren with much confidence, as an excellent remedy. The formulæ which he uses, are the following:—

℞. Biniodi hydrargyri, gr. viij.
Iodidi potassii, gr. viij.
Aquæ distillatæ, ℥viij. Solve.
Dose, from ℥ij. to ℥ij. in 24 hours.

℞. Biniodi hydrargyri, gr. viij.
Iodidi potassii, gr. viij.
Sacchari lactis, gr. lxiv.
Mucilag. arab. q. s. In pil. 32 divid.
Dose from one to eight daily.

N. B.—The pills must be covered with gelatine to preserve them from diliquescence.

According to M. PUCHE, the medium duration of the treatment with the simple biniodide is from 50 to 60 days, and the average quantity of the salt to be taken is from 80 to 120 grains. He commences with one grain daily, increasing the dose every third day by one additional grain.

M. PUCHE mentions that he is in the habit of testing the character of the secretion from venereal sores by inoculating the patients with it in the thigh or arm. If the infectious quality of the discharge continues, the puncture will exhibit on the third or fourth day *une pustule ecthyma caracteristique de l'infection, pustule qui presentement est ulcree et tres sensible.—Bulletin General de Therapeutique.*

Venereal Excrescences treated by watery solution of Opium.

M. VENOT, of the Venereal Hospital, Bourdeaux, having been disappointed in the various remedies which he had employed for the treatment of venereal vegetations, determined to try the efficacy of the narcotic lotions, recommended by M. DESRUELLES. His experiments were most successful, and from them he draws the following conclusions:—

1. The solution of opium should be fresh and concentrated, an ounce of water containing at least one drachm and a half of opium.

2. The white dry epidermoid vegetations do not yield so readily.

3. All cases of mucous vegetations, moist warts, condylomata, &c., are almost certainly cured by the watery extract of opium, especially if employed after general treatment.

4. The local action of the remedy is manifested in the following manner:—the vegetations dry up, become pale, then yellow, brown, and finally waste away.

5. This action, which is evidently poisonous, may extend to the healthy parts and determine certain accidents, against which the physician must be on his guard.—*Lancet*, from *Gazette Med. de Paris*, Jan. 13, 1840.

MISCELLANEOUS NOTICES.

MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND.

At the annual convention of the Faculty, held in Baltimore on the 1st, 2d and 3d of June, 1840, the following officers were elected for the ensuing year:

Dr. MAXWELL McDOWELL, *President.*
" ROBERT A. DURKEE, *Recording Secretary.*
" JOHN L. YEATES, *Corresponding Secretary.*
" J. I. COHEN, *Treasurer.*
" SAMUEL CHEW, *Librarian.*
" STEPHEN COLLINS, *Orator.*

MEDICAL BOARD—*Examiners for the Western Shore.*

Drs. George S. Gibson, Robert A. Durkee, Thomas H. Wright, John H. Briscoe, Alexander Dulin, Peter Snyder, Samuel Annan.

Examiners for the Eastern Shore.

Drs. Tristram Thomas, Jas. Bordley, Peregrine Wroth, G. Martin, Alex. H. Bayley.

LIBRARY DIRECTORS.

Drs. John Fonerden, Samuel Annan, Samuel Chew, Joel Hopkins, T. Worthington, George S. Gibson, John H. Briscoe, J. I. Cohen, J. R. W. Dunbar, Saml. G. Baker.

CENSORS—*Western Shore.*—CITY OF BALTIMORE.

First Ward,	Dr. H. Inloes,		Seventh Ward,	Dr. R. Sexton,	
Second do.	"	Samuel B. Martin,	Eighth do.	"	J. A. Schwartze,
Third do.	"	A. Clendinen,	Ninth do.	"	R. H. Thomas,
Fourth do.	"	Amasa Kellogg,	Tenth do.	"	F. E. Chatard,
Fifth do.	"	Peter Snyder,	Eleventh do.	"	Alex. C. Robinson,
Sixth do.	"	Charles Maguire,	Twelfth do.	"	J. Armitage.

CITY OF ANNAPOLIS.—Dr. Dennis A. Claude, Dr. John Ridout.
CITY OF FREDERICK.—Dr. C. L. Goldsborough, Dr. William Waters.

COUNTIES.—*Western Shore.*

ALLEGANY COUNTY.—Dr. J. M. Lawrence, Dr. Samuel P. Smith.
WASHINGTON COUNTY.—Dr. L. Clagett, Dr. James Hayes.
FREDERICK COUNTY.—Drs. Richard Dorsey, Jefferson Shields, Jacob Baer.
CARROLL COUNTY.—Drs. J. L. Billingslea, N. Brown, Jacob Shower, J. Swope.
BALTIMORE COUNTY.—Drs. John D. Readel, Josiah Marsh, Isaac Cole.

HARFORD COUNTY.—Drs. S. L. Horton, T. Worthington, J. Montgomery, J. Preston.

MONTGOMERY COUNTY.—Drs. Otho Wilson, Wm. P. Palmer, Horace Wilson.

ANNE ARUNDEL GOUNTY.—Drs. Joel Hopkins, John H. Owings, L. T. Hammond, Gustavus Warfield.

PRINCE GEORGE'S COUNTY.—Drs. B. Day, Th. Lee, E. H. Calvert, G. Tyler.

CALVERT COUNTY.—Drs. John Broom, Richard Mackal, Thomas Blake.

CHARLES COUNTY.—Drs. William Queen, J. R. Ferguson, Francis Neale.

ST. MARY'S COUNTY.—Drs. Brown, Charles Briscoe, William G. Edelen, Joseph Ford.

COUNTIES—*Eastern Shore.*

CECIL COUNTY.—Drs. A. Evans, John Fisher.

KENT COUNTY.—Drs. Edward Scott, Peregrine Wroth, M. Brown.

QUEEN ANNE COUNTY.—Drs. J. K. Harper, R. Goldsborough, Jr., J. Bordley.

CAROLINE COUNTY.—Drs. George T. Martin, H. F. Rosset, William Hemsley.

TALBOT COUNTY.—Drs. S. T. Kemp, Sydenham Russum, Edward Spedden.

DORCHESTER COUNTY.—Drs. W. Jackson, F. P. Phelps, A. H. Bayley, J. Woolford.

SOMERSET COUNTY.—Drs. S. K. Handy, S. J. S. Kerr.

WORCESTER COUNTY.—Drs. T. S. Martin, J. P. Giles.

The following gentlemen have been admitted members of the Medical and Chirurgical Faculty of Maryland, and have received a license from the Western Board to practice Medicine in this State since the 5th of June, 1840.

Joseph Getzendanner, M. D.; James B. Price, M. D.; Wm. S. Thompson, M. D.; Henry Albers, M. D ; Francis Shurman, L.M.; Wm. Power, M.D.; J. E. Snodgrass, M.D.; Wm. Clendinen, M D.; Wm. E. A. Aiken, M.D.; Miles Donaldson, M.D.; Wm. E. Bond, Jr. M.D.; P. S. Kinnemon, M.D.

Three hundred dollars were appropriated to the Library for the ensuing year.

COMMITTEE ON EXPERIMENTS,

With vaccine and variolous matter and the grease of horses.

Drs. John H. Briscoe, J. J. Graves, Samuel Chew, John L. Yeates, Robert A. Durkee.

COMMITTEE ON REVIEW

Of the progress and improvements in American and Foreign Medicine and Surgery.

Drs. John R. W. Dunbar, John Fonerden, George S. Gibson, Alexander C. Robinson, Samuel Annan, Nathan R. Smith, William N. Baker.

PROVISIONAL ELECTION OF DELEGATES

To a National Medical Convention, whenever convened.

Drs. John R. W. Dunbar, Peregine Wroth, Maxwell M'Dowell, Ashton Alexander, John Fonerden, John H. Briscoe, Nathan R. Smith, Joel Hopkins, John L. Yeates.

EDITORIAL COMMITTEE,

For the publication of a Medical Journal.

Drs. George C. M. Roberts, Samuel G. Baker, James H. Millar, John R. W. Dunbar, Nathaniel Potter, Robert A. Durkee.

Among other resolutions, the following were adopted by the convention for the present annual term:

Resolved, that Drs. Saml. G. Baker, Wm. Riley and Wm. E. A. Aikin, on the part of this Faculty, conjointly with the Messrs. Coleman, Stewart, Andrews, Roberts &

Atkinson, Brice & Philips, Hill, Scott, McKenzie and Dr. Gordon be appointed a committee to plan an organization of a college of Pharmacy; and Report at the next meeting of the convention.

Resolved, that the Medical and Chirurgical Journal of Maryland shall be continued, and that the efforts and revenue of this Faculty shall be appropriated to this object, that the thanks of the Faculty are due, and are hereby presented to those friends at home and abroad, who have contributed by their efforts to establish and sustain the reputation of the Journal.

Resolved, that the Eastern and Western Boards of Examiners, are hereby instructed to carry out strictly, the laws of this Faculty, relating to the admission of members into this body.

Resolved, that the respective Boards are directed to report on the first day of each annual session, the names of all persons to whom they may have granted licenses during the preceding 12 months, with the circumstances under which the right of membership was conferred.

Resolved, that the said Boards be directed to report at the next annual session, the propriety of erasing from the list of members of this corporation, the names of such persons as have forfeited their right of membership.

The Convention adjourned to the first Monday in June, 1841.

ROBERT A. DURKEE, M. D.
Recording Secretary.

Lectures on the Theory and Practice of Physic. By WILLIAM STOKES, M.D. Lecturer at the Medical School, Park street, Dublin—Physician to Meath Hospital, &c. &c. Second American Edition, with numerous notes and twelve additional lectures. By JOHN BELL, M.D. Lecturer on the Institutes of Medicine and Medical Jurisprudence; Fellow of the College of Physicians of Philadelphia, &c. &c. &c.

WE have received from the publishers a copy of this standard work; the additions by the American editor, add much to its value. The opinions of one of so sound a judgment and extensive practice in diseases of this and other countries, must greatly add to its value in the opinion of the Medical profession in the United States; we trust this is but a precursor to a complete work on Practice by the American editor.

New Elements of Operative Surgery. By ALF. A. L. M. VELPEAU, Professor of Clinical Surgery to the Faculty of Medicine of Paris,—Surgeon to the Hospital of La Charite, Member of the Royal Academy of Medicine—with a quarto Atlas of 22 copperplates, representing the principal operations and a great number of surgical instruments—from the last Paris edition, illustrated by a large number of wood cuts.

WE have been informed that this truly valuable work, is in course of translation with notes, by a physician of this city, and that it is in such a state of forwardness, that it will be ready for the press in a few months. Most of the splendid plates for the Atlas are already completed. We believe that this work, which has been justly pronounced a Library of Surgery, ought to be in the possession of the profession generally, and that its publication will be properly appreciated.

LIBRARY OF THE MED. AND CHIRURG. FACULTY OF MARYLAND.

In the year 1799, the Legislature of Maryland granted a charter, incorporating "The Medical and Chirurgical Faculty of Maryland." The end of the charter was, to encourage the cultivation of a high grade of Medical and Surgical knowledge. It required persons before beginning the practice of Medicine and Surgery in Maryland, after a specified day, to apply to the Faculty for license to practice. It directed an election, annually, of a Board of Examiners, consisting of well-educated physicians and surgeons, to examine candidates, and, if they were found competent, to grant them licenses. For the purpose of raising a fund for the diffusion of Medical and Surgical knowledge, each licentiate, on receiving his credentials, was required to pay a fee of not more than ten dollars, to the treasurer of the corporation.

The fees placed in the treasury amounted, after thirty years, to several thousand dollars, nearly all of which had been invested in bank-stock. At the annual conventions it was often a question for general conversation, How ought the funds to be used, so as to answer the end of the charter? At length, at the convention of 1830, the late Professor Samuel Baker, introduced a resolution, for making an appropriation of five hundred dollars, for the purchase of books, to be kept in a suitable place, under the direction of a committee, for the use of the members of the Faculty. The convention being well attended, the resolution was thoroughly discussed; and, to the gratification of its friends, it met with no opposition, that did not finally yield to a conviction of the practicability and usefulness of the proposed measure. The resolution was triumphantly carried; and thus was laid the foundation of a Library, which has since, by a continuance of annual appropriations out of the dividends from the bank-stock, gradually become a very valuable collection of ancient and modern writings.

The shelves of the library now contain the time-honored volumes of Hippocrates, Aretæus, Aetius, Paulus, Orisbasius, Actuarius, Celsus, Scribonius, Marcellus, and other diligent and hardy pioneers; besides the labors of many of their successors, of various nations, and of successive eras; including the enlightening researches of our own day.

The existence of such a collection, as the catalogue of this library announces to be at the command of the members of the corporation throughout the State, is one of the results of the care, with which the Faculty has undeavored to use its funds, wisely, for a permanent diffusion of medical and surgical knowledge.

The object of publishing this notice is, to intimate to all whom the advancement of science may concern, that, as the library-fund is needed for the purchase of modern books chiefly, the hope of being able to enlarge the collection of old authors is founded on the supposition, that there are many owners of old volumes and pamphlets, in Maryland, and perhaps, elsewhere, who may be disposed to transfer to this institution, the responsibility of the safe-keeping of these remains of ancient times.

Samuel Chew, M. D., Librarian, No. 88 North Howard street, will receive and catalogue all donations to the library.

JOHN FONERDEN,
Chairman of the Board of Library Directors.

THE

MARYLAND

Medical and Surgical Journal.

October, 1840.

SURGICAL CLINIC.

By N. R. Smith, *M. D.*

Professor of the Theory and Practice of Medicine in Transylvania University, and Lecturer on Surgery in the University of Maryland.

Ligature of the Carotid Artery for the cure of Carotid Aneurism. Temporary Paralysis following the application of the Ligature. Recovery.

In July of 1839, I was invited by my friend Dr. Owings, of Aisquith street, O. T., to see, in consultation with him, a colored man about thirty-five years of age, a servant on board a steamer, laboring under carotid aneurism. A tumor of half the size of a small orange was situated below the left angle of the lower jaw, and opposite to the os hyoides and thyroid cartilage. It pulsated strongly, expanded in the grasp of the fingers, and communicated the usual aneurismal thrill to the hand. It was also the seat of pain and tenderness, although the most distressing sensations were experienced in the left side of the head, occasioned undoubtedly by the pressure of the tumor on the nerves of the neck. The patient

also suffered some pain and difficulty in deglutition, and was affected with hoarseness. He had been aware of the existence of the disease only for three months, and had no recollection of any injury having ever been inflicted upon the part.

His general health was but little impaired; no more so indeed than may be supposed to have resulted from the local irritation. The sounds and impulses of the heart were natural, and the arteries, as far as tangible, were no where rigid.

The aneurism was obviously located at the bifurcation of the common carotid. The artery towards the heart presented no evidence of disease.

The case was regarded by myself and Dr. OWINGS as a favorable one for the ligature, and the patient having been prepared by proper depletion, suitable regimen, and repose for a few days, the operation was performed in the presence of Dr. O., my brother Dr. J. M. SMITH, my pupils and several medical friends. It is by no means necessary that I should relate the particulars of the operation, which was performed in the usual mode, a single silk ligature being applied at the point where the artery emerges from beneath the angle of the sterno-mastoid and the amo-hyoid muscles. None of the sources of embarrassment which sometimes occur were encountered; but little pain was experienced on drawing the ligature;—the pulsation of the tumor immediately ceased, and the patient was left in a most comfortable condition. The operation was performed in the morning;—in the evening I saw the patient, and still found him in a very pleasant condition, a very slight pulsation, however, having recurred in the tumor.

The next morning I received an urgent summons to my patient, and on reaching him found him in a very alarming condition. He was speechless, scarcely conscious, though wakeful, and completely paralyzed on the right side. His pulse was rather less active than immediately after the operation, and there was no evidence of the present existence of any unusual determination to the head, or any remora of blood in that region. The attack had come on suddenly, very early in the morning, soon after the patient had risen to stool.

The result surprised me not a little, and certainly seemed at variance with established pathological principles. It was surely not a little remarkable that a malady supposed to depend on

vascular engorgement of the brain should follow upon the interruption of one of the principal currents of blood to that organ. Had one of the jugulars been obstructed, instead of the artery, the result would have been intelligible.

Taking into consideration these circumstances, and regarding the character of the pulse, I surmised that the case might be allied to what has by some writers been termed nervous apoplexy or paralysis, the symptoms arising from the abolition of power in the brain and nerves, owing to the interruption of circulation in the organ, or other cause. The application of the ligature to so large a trunk as the common carotid, might certainly be supposed to diminish sensibly and suddenly the amount of blood circulated in the brain.

With these views in regard to the case, I refrained from taking blood from the patient, pursuing a negative course indeed, and trusting to the recuperative powers of the system.

On visiting the patient in the evening, however, there had occurred a manifest re-action in the arterial system, the pulse being full and firm. The symptoms were nevertheless not aggravated. We now resolved immediately on venesection, carefully watching its effects. Scarcely had sixteen ounces of blood been discharged from a vein in the arm, softening in a measure the pulse, before there occurred a manifest mitigation of symptoms; the patient moved, for the first time, his right arm and leg, articulated imperfectly, and evidently comprehended every thing which was addressed to him. An active aperient was now prescribed, and its effects conspiring with those of the lancet, the patient continued hourly to improve. The wound, in the meantime, closed by first intention to a considerable extent. The pulsation entirely ceased in the tumor, which became hard, but continued for a time resistive and a little painful.

Every thing now went on well with the patient; the paralysis gradually disappeared; the ligature came away on the 17th day; the tumor continued to decline. At the end of a few weeks he was discharged well, and resumed his labor.

I leave it to every one who may possess himself of the above facts, to speculate at liberty on the pathology of the case. For my part I am convinced that my first surmises in regard to the case were erroneous, a conclusion justified by the effects of the

lancet and the result of the malady. There undoubtedly existed, as the prodrome of the apoplectic symptoms, hypermia of the brain, and it is to be presumed that the application of the ligature, had something to do with its production. What was its mechanical, or physiological mode of operation, I will not attempt to explain. Perhaps, however, the application of the ligature caused, at first, a diminished flow of blood to the brain. On this there may have followed re-action, accompanied with unusual excitement in the arteries not obstructed, giving rise to vascular engorgement. Had a portion of the brain ceased to act from the partial interruption of the circulation, the effect probably would have resulted immediately after the application of the ligature.

Laryngotomy, for the removal of a Foreign Substance lodged in the Larynx.

IN June of last year, I was requested to see a child at the parsonage house in Lee street, requiring surgical aid. It was the little daughter of Mrs. C. from Virginia, who had brought it to town for relief of very distressing symptoms, caused by the supposed introduction of some foreign substance into the air passages. The child was about two years of age, and in other respects in tolerable health. A few days before it had been at play with some small beans, and had been suddenly seized with a fit of strangling which had nearly destroyed it, though no one saw the foreign substance enter the mouth. From that moment the embarrassment of respiration continued. When I saw the child, the breathing was tight and difficult, and on the application of the ear to the vicinity of the larynx, the clapping sound of some foreign substance was distinctly heard. At times, the mother informed me, that there occurred paroxyms of extreme suffering which appeared to threaten immediate suffocation. There was the usual degree of constitutional disturbance.

The circumstances of the case appearing to justify a resort to the knife, I proceeded at once in the following manner, in the presence of the reverend gentleman, at whose house I saw the patient, and that of several of my pupils.

It was the second instance in which I had performed the operation of laryngotomy, and I resolved so to modify the operation as to avoid certain difficulties which I had encountered on the former occasion. Those difficulties had consisted in the extreme mobility of the soft parts over the trachea and larynx in the neck of a fleshy child, and the inability which I experienced to maintain the coincidence of the cuts in the successive layers, when made by the scalpel. The mode which I pursued in this case, though not unique, was unusual. The child being held in the lap of a person, in the reclining posture, the head thrown back, I applied the finger and thumb of the left hand to opposite sides of the larynx, pressing so firmly as to confine the air tube in regard to lateral displacement, and to render the integuments tense over the part to be incised. I then transfixed the upper ring of the trachea with a narrow bistourie, and carrying the instrument directly upward, divided the cricoid cartilage and a portion of the crico-thyroid membrane, dilating the external wound as I withdrew the knife.

In the short neck of a child, the larynx being imperfectly developed, it is obviously impossible to obtain a sufficient opening for the subsequent steps of the operation, by merely incising the crico-thyroid membrane. It is equally ineffectual to confine the incision to the rings of the trachea, and, besides, there is danger of wounding the thyroid veins; and, when the incision is made, far more embarrassment in extracting the foreign body in case it be lodged in the larynx. The necessary division of the cricoid carticle is not a circumstance which seriously complicates the lesion in the method selected by me.

It is also desirable that in a case like this, the incisions should be performed promptly, without the necessity for forcible confinement of the child for any considerable time, as its struggles never fail to bring on a paroxysm of suffocation alarming to the attendants, and embarrassing to the operator.

On withdrawing the knife, air bubbled from the wound, and, on expanding its lips, the opening in the larynx was seen. I now inserted retractors and dilated the incision to give vent to the blood, which, however, was not copiously effused, and also to favor the spontaneous expulsion of the foreign substance, which, as is well known, not unfrequently occurs in similar cases.

But although the expulsive efforts were strong, nothing but blood and frothy mucus issued. I now introduced a pair of curved spring forceps, and sought for the supposed foreign substance. I could, however, seize nothing. I then took a gum-elastic bougie, which I had provided for the purpose, and introducing it into the wound, directed it upward, toward the glottis. With gentle pressure I caused it to pass the glottis, and finally to issue at one of the nostrils. I then withdrew it and desisted for a moment, to observe the character of the breathing, knowing that, if I had disengaged the foreign substance by thrusting it into the fauces, it would probably be swallowed, and the only evidence of its removal would therefore be improvement in respiration. The child, however, breathed as before. I repeated the effort with no better success. I now wrapped the centre of the bougie with a piece of fine linen, securing it firmly at one border with a silk thread, and leaving the other free and loose like a ruffle. I then re-introduced the instrument, and having brought the extremity, as before, through the nostril, I seized its two extremities and drew it several times gently back and forth, so that the linen swept the larynx. Having next withdrawn the instrument, I desisted from further efforts. When the hurry and embarrassment of respiration, occasioned by the presence of the instrument in the air-passages and by the pain inflicted, had subsided, I had the satisfaction to observe that there no longer existed the previous obstruction to the breathing, the child respiring with but little effort, and the clapping sound no longer being heard. On removing some coagulated blood from the lips of the wound, I discovered in it a dark substance, which, on examination, proved to be a small piece of silk, about three or four lines square. No one saw it issue from the wound, but the circumstance led me to suspect it as the foreign body which had caused the mischief. Either it must have been so, or some other substance had been thrust from the glottis into the fauces and swallowed.

I now closed the wound and committed the little patient to the charge of its mother. On the next morning I learnt that the child had passed a restless night, had been annoyed with more or less cough, and had been affected with croupy respiration. There was also manifest mucous rale heard on applying the ear to the chest, giving evidence of the occurrence of a degree of bronchitis.

While these symptoms were still present, and I yet felt much solicitude in regard to the result, the patient was taken to the country. I heard nothing more of the case for three months, at the end of which time I received a grateful message from the mother, with the pleasing intelligence that the little sufferer had prefectly recovered.

Ligature of the Brachial Artery, wounded in Phlebotomy.

IN July, 1838, a medical friend, a prudent and intelligent practitioner of this city, had the misfortune to wound the Brachial Artery in bleeding from the bend of the arm. The patient was a colored women, about thirty years of age, a servant in the family of a gentleman in Baltimore. A spring lancet was the instrument employed. The artery was wounded beneath the median basilic vein, where covered by the aponeurosis. The nature of the injury was manifest the moment after its infliction, and the operator arrested the effusion of blood, by instantly applying his finger to the wound. He then requested the master of the house to use his carriage, which was at the door, and to procure my attendance and assistance. I was with him in a few minutes, and found him still commanding the wounded vessel with his finger. On its removal there was an impetuous gush of arterial blood. No diffusion of blood into the cellular tissue had as yet taken place.

Applying the garrot to the arm, for the purpose of commanding the hemorrhage, I dilated the wound with the director and bistoury, and soon laid bare the injured portion of the artery. I then passed a double ligature beneath the vessel, and dividing it, secured the artery above and below the wound. The hemorrhage was thereby completely commanded, and pulsation could no longer be felt in the radial artery at the wrist. Light and simple dressings were applied and the arm was placed in a sling.

In the evening of the same day, (the operation having been performed in the morning, (I was somewhat surprised to find the pulsation of the radial, at the wrist, nearly as strong as in the opposite member. The arm continued to be the seat of some pain for several days, but on the whole the case progressed favorably, the ligatures come away on the 12th day, and in three weeks the patient was performing her usual work.

I would here take occasion to remark, that in all the instances which I have seen of the Brachial artery wounded in venesection, the mischief has been inflicted by the spring lancet. Possibly it is for the same reason that is given to explain why white sheep eat so much more than black ones. A large majority of physicians use the spring lancet. But in the hands of prudent and well informed practitioners, I am persuaded that the thumb lancet is the safer instrument. In a number of Prof. GEDDINGS' Archives, published in this city some years since, I gave several reasons for this opinion.

TWO CASES OF TETANUS.

By Dr. Wm. E. B. Coale, *U.S.N.*

The following cases of Tetanus presenting some singular features, I have deemed them worthy of publication.

Tetanus of the Nerves of Sensation.

Some exceptions may be taken at the title of this case, but I do not think it more inapplicable than the name tetanus (a teino) itself for a disease in which the striking phenomena are violent contractions.

In the winter of 1836, I was called to see a boy aged fourteen, who had run a nail in the right foot, thirty-six hours previously. Twelve hours before I saw him, he had been attacked with violent spasmodic pains in the left leg, causing him to cry out in the utmost agony. The wound itself, was but little swelled and by no means highly painful. The room in which he lay, in a miserable hovel, was open to the inclemency of the weather, and its discomfort was much increased by a passion of the mother for daily scrubbing it, which nothing could induce her to desist from. The pain had gradually increased in extent and violence and also in the frequency of its return, shooting completely up the left leg and thigh, and thence up the back, *but not the slightest muscular contraction took place.* Living at so great a distance as to prevent my giving the attention necessary, I was forced to transfer the case to another physician, visiting it however as often as possible in company with him. The treatment pursued was the administration of small opiates which seemed merely sufficient to keep the disease in check and permit it to assume a chronic form. The tetanus or erethism of the sensitive nerves continued for three weeks, producing three or four violent accessions of pain daily. At the end of that time the nerves of motion began to be affected, and from slight twitchings the contractions became very violent, producing considerable opisthotonos. The excitement of the sensitive nerves decreased in the same ratio that that of the motive nerves increased, until the spasms were unaccompanied by any pain, and occurred once in twenty-four hours. The treatment

was from inattention of the mother, very irregular, and had no adjuvants to its effects, in respect to diet or other necessaries or comforts. These spasms continued for four months, much debility and emaciation ensuing, and during one accession the head of the femur was thrown out upon the dorsum of the ilium. When I last saw the unfortunate boy, this had ulcerated through the skin, and from having missed him from the street, about which for sometime he begged, I doubt not that death has terminated his sufferings.

To this case my repeated searches and inquiries have not found a parallel.

Tetanus from lesion of the Phrenic Nerve.

WHILE at the U.S.N. Hospital, Portsmouth, Va., in November, 1837, a colored man was brought in who had been sitting upon the gunwale of a launch, when she was run into by the Steamboat Georgia. His arm was jammed just above the elbow, producing a comminuted compound fracture of the humerus. Falling lower, his chest was compressed so as to fracture the compound cartilage of the seventh and lower ribs. Still falling and undergoing severe compressions, a thole pin entered the external abdominal ring and tore off the skin from one-half of the penis, and the whole of the anterior part of the scrotum. As he was lifted aboard the Java, a portion of gut eight inches in length protruded from the wound in the lower part of the abdomen. The temperament of this man was highly favorable—quiet, uncomplaining, of great resolution and perfectly temperate. The arm was set, and kept in place by three splints. The ribs confined by the usual bandages. The lacerated and at first highly painful wound of the groin, was dressed with emollient poultices—the sloughs coming away in due time and the surface granulating very handsomely. The fever never rose to any greater height than any one of the injuries would have produced, and after the first week entirely subsided, leaving a fine regular pulse and healthy moisture of skin.

The fracture of the ribs produced most uneasiness after the first week. This however abated much and he progressively improved up to the *twenty-first day*, when upon visiting him in the morning

he complained of having caught cold in the night and having a stiff neck. He also said that he was chilly at times, and his chill commenced at the fracture of the cartilages. These complaints, as we judged, were the commencement of tetanus, which in spite of the most active treatment, carried him off at 2, A. M. the next day. Spasm of the muscles of the larynx and diaphragm being the prominent symptoms, the spasms always commencing at the point of the fracture. Death thus took place twenty-two days and twelve hours after the reception of the injury.

An examination after death showed a very favorable state of the wound of the testicle—the sloughs removed, and the aperture by which the gut escaped completely closed. Upon cutting down through the biceps muscle, it was found to be much lacerated and the bone broken into four pieces. There was but slight tumefaction around, but there appeared no attempt at reparation. We were surprised to find the injury so great, as it had caused so little irritation.

Upon cutting into the thorax the diaphragm was found much blackened around the seat of injury, and tracing down the phrenic nerve from its passage behind the scalenus muscle, it was found highly inflamed and of a deep red color, of which continued and repeated washings did not deprive it. Many considerable fibres were traced into the contused and inflamed part of the diaphragm, clearly proving I think, that the tetanus proceeded immediately from the inflammation of this nerve.

The length of time which elapsed between the reception of the injury—and the inception of the tetanus is worthy of note—and it is also remarkable that the disease should have proceeded from a simple fracture, rather than from either of the other complicated and serious wounds.

Sir JAMES MCGREGOR, in a sketch of the Medical History of the armies in Spain and Portugal, published in the sixth volume of the Medico Chirurgical Transactions, mentions that the patient is safe if he escapes until the twenty-second day. This rule through generally correct, is not without exceptions. Many are on record, where six and seven weeks, and even a longer period has elapsed, and it is noted that in these cases tetanus is not so immediately fatal, and is apt to take a chronic form.

A paper on the Mechanical treatment of HERNIA. *Being the first of a series intended to convey some knowledge of the Instruments employed by the writer in the treatment of this disease, with illustrations and cases. By* HEBER CHASE, *M. D. Philadelphia.*

IT will be conceded by all, that the subject of the Mechanical treatment of Hernia has received but little attention in this, or any other country, until within the few past years. It is therefore deemed appropriate, that in the treatment of Hernia for radical cure, specific directions should be furnished to all those who may be called upon to treat the disease; inasmuch as experience has shown that there are difficulties which most persons in the outset will be likely to encounter, and who, for the *want* of experience, may be unable to surmount.

It is not the general principles which are involved in the disease, or on which the treatment is based, that need be introduced here,* as it is presumed that on these subjects every well educated physician and surgeon are informed; and as it is "distinctly understood that in the choice of a truss, and in its adaptation, the aid of a competent surgeon is indispensable," it is the details of treatment that are required to supply the deficiency occasioned by inexperience. As there will be cuts and representations sufficient to exhibit the anatomy of the parts, the form of the instruments, and the local position of the truss when applied, it only remains to proceed with such details, as at first view, might seem unimportant, but which will be found the essential aid needed in the progress of treatment.

As there will be frequent occasion to refer to the different varieties of this disease, it will be found expedient to note these different varieties, in order to aid in their description and treatment.

EXPLANATION OF TERMS.

Concealed Inguinal Hernia.—A protrusion of the bowels through the internal inguinal ring, without descending far into the inguinal canal.

* See "Chase on Hernia," Chapter VII. p. 101. "On the Modus Operandi of the instruments for the Radical Cure of Hernia." Also, Dr. Reynell Coates' letter to Dr. Chase, contained in the same Chapter.

Indirect Inguinal Hernia.—A protrusion of the bowels through the internal ring, and extending along the inguinal canal to the external ring, without alteration in the position of the rings.

Direct Inguinal Hernia.—The inguinal rings in this variety of hernia are brought in opposition to each other, and thereby constitute a direct passage for the descent of the bowels from the abdomen into the scrotum.

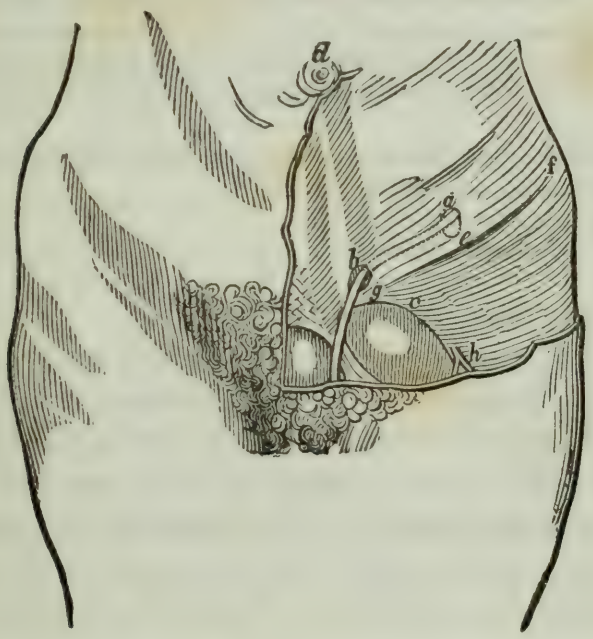
Ventro-Inguinal Hernia.—A protrusion of the bowels through the tendons of the internal oblique and transversalis muscles, passing out of the external ring.

Femoral Hernia.—A protrusion of the bowels under POUPART'S ligament, and passing down in the sheath of the blood-vessels of the thigh.

Umbilical Hernia.—A protrusion of the bowels at the navel.

Ventral Hernia.—A protrusion of the bowels at any point on the anterior surface of the abdomen.

ANATOMICAL VIEW OF THE PARTS CONCERNED IN HERNIA.



a, The internal abdominal ring, where Inguinal Hernia appears.—*b*, The external ring, where Ventro Inguinal Hernia appears.—*c*, The spot where the Tumor in Femoral Hernia is generally seen.—*d*, The umbilicus, where Umbilical Hernia is seen.—*e*, The middle of POUPART'S ligament.—*f*, The anterior superior spinous process of the os ilium.—*g*, The body of the os pubis.—*h*, The saphena vein.

DR. CHASE'S INGUINAL BLOCK, WITH ATTACHMENT AND DESCRIPTION, REDUCED TO TWO-THIRDS OF ITS NORMAL SIZE.

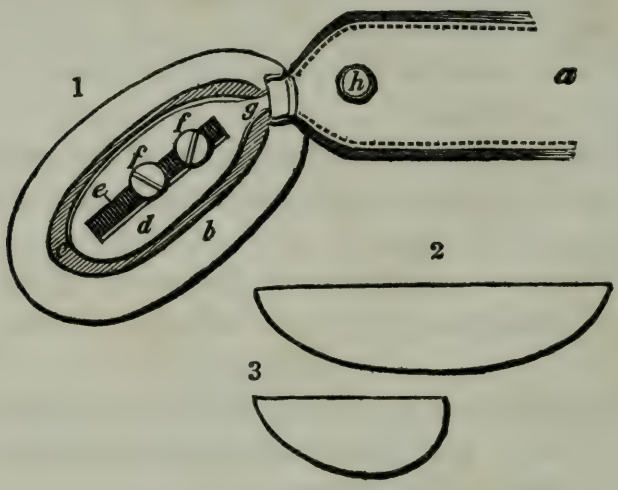


Fig I.—*a*, The extremity of the main-spring of the truss.—*b*, The block.—*c*, The brass block-rider: by which it is attached, being covered by the block-slide.—*d*, The block-slide.—*e*, The window in the block-slide.—*f*,*f*, The two broad-headed screws of the block-adjustment, securing the rider to the slide, and, when loosened, sliding freely in the window.—*g*, The soft iron flexible neck, attaching the block-slide to the main-spring.—*h*, The button for the pelvic strap, which is generally used for the perineal strap also.

The proper perineal strap-button on the end of the block-slide is omitted in this and some succeeding figures, to prevent confusion.

Fig 2.—Longitudinal section of the block.

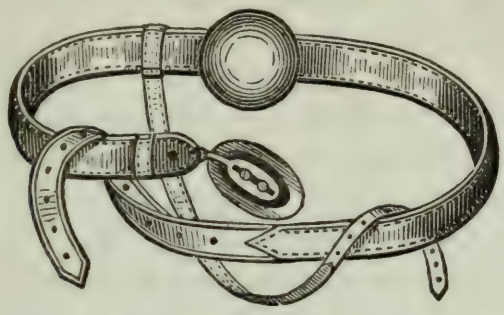
Fig 3.—Transverse section of the same.

Of this truss there are six sizes.

This block is compressed upon its superior margin and abdominal face, so as to change the greatest diameter from its longitudinal centre, nearly to the inferior margin, with a view to press more directly upon the inguinal canal, and with less danger of compressing POUPART's ligament. By diminishing the diameter of the pubic extremity of the block, and increasing the diameter of the iliac extremity, its adaptation to Concealed Inguinal Hernia is complete.

INGUINAL TRUSS, COMPLETE.

(Employed in Concealed and Internal Inguinal Hernia.)



In the choice of an instrument for this form of the disease, great care should be taken that the spring is of the curvature to adapt itself accurately around the pelvis, passing between the superior crest of the ilium and the Trocanter major, and of sufficient length only to pass around to the middle of the oppposite ilium, the strength of the spring to be governed by the amount of pressure needed to retain the bowel, without giving unnecessary uneasiness to the patient. The spring should then be armed, first with a perineal strap, the loop of which should be placed opposite to the middle of the ilium of the side diseased, and *secured* there; in the next place, a back pad may be added if the spine be prominent, to prevent irritation, and to steady the instrument in its place. This done, the patient should be laid upon his back, the lower extremities extended, the arms placed by his side, and the head upon the same level with the body. That the abdominal muscles may not be disturbed, the patient should not be permitted to raise his head during the application of the truss. The intestines should then be returned into the abdomen, and with great certainty, as much pain and danger of inflammation might be apprehended, should a portion of it remain down after the application of the instrument. The truss may now be applied, by first passing the spring accurately around the pelvis as above suggested, and the continuous strap of the instrument carried across the abdomen, and fastened to the knob upon the anterior extremity of the spring, (*see* h, *description of the truss.)*

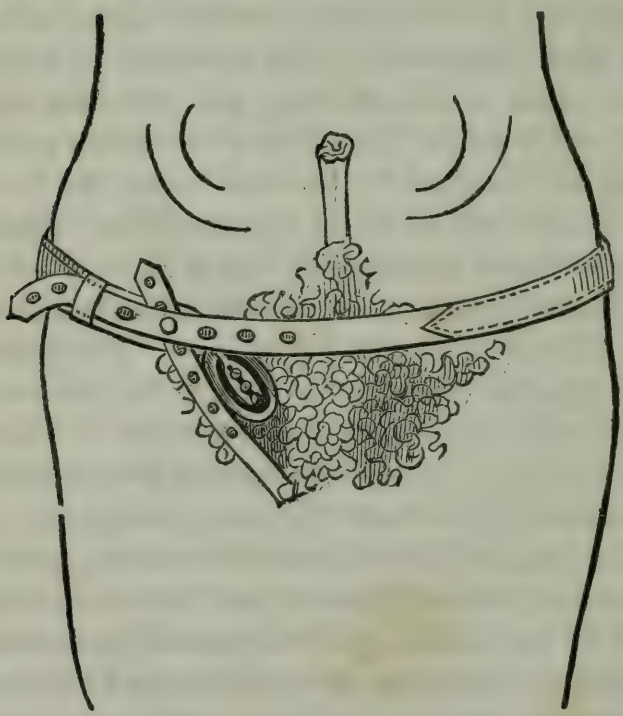
The block having previously been adjusted so as to rest immediately above POUPART's ligament, and upon the whole extent of

the inguinal canal, overlapping the internal inguinal ring, and the inferior margin of the block, corresponding with the curvature of the bone below, by means of twisting or bending the neck of the block-slide, *(see g.)* or by retracting or extending the block by means of the fenestrum, or window in the block-slide *(see c.)* should be raised and let down cautiously, so as not to move the skin from its natural position. If this precaution be not taken, the block will be likely to be removed from its proper location, and thereby endanger a protrusion of the bowel. The perineal strap, looped as above suggested around the spring, may now be carried down anterior to the tuberosity of the ischium, and in the fold of the glutei muscles around the thigh, brought up and fastened to the knob in the extremity of the block-slide. The patient should now be required to stand erect, and the position of the block examined. Great care should be taken in the examination of the block in this position of the patient, for, if it be permitted to rest upon or against the bone beneath, or upon POUPART'S ligament, serious inconvenience would arise, and especially if it be allowed to come in contact with the tuberosity or spine of the pubis. It should, however, come as near to these parts as possible; without an interference with them, which may easily be determined by pressing the block inward with the thumb, and if it pass easily above those parts, no inconvenience may be apprehended. It is sometimes the case, however, that although the block may be accurately applied while lying down, yet, if the patient be corpulent, the weight of the abdomen, while standing, will depress the block upon the bone; in that case, the patient should be placed upon his back again, and the block elevated above its proper location, which will obviate this difficulty while standing. Several days are sometimes required before a satisfactory adaptation of the block is attained; and hence the necessity of frequent calls from the patient, until this end is accomplished. Should there be a disposition of the bowel to descend, the pubic extremity of the block should be pressed in by bending the neck of the block-slide in that direction, or twisting the neck, so that the block will press more heavily upon the inguinal canal. The facilities for altering and adjusting the instrument are so great, that nothing is needed but time to secure a perfect retention of the bowel, which is the desideratum to be attained.

No patient should expect to be cured of any disease without suffering some inconvenience; and it is a source of much gratification, that in the treatment of Hernia, less inconvenience may be apprehended than in most other diseases. Yet there must necessarily be some, and in so formidable a complaint as this, which threatens perpetual ill health, every patient should be willing to submit to the trifling pain or uneasiness which may occur, inasmuch as he has the prospect before him of a perfect restoration of his health. Inflammation is a common result in the first application of the truss, in a greater or less degree, and is desirable on many accounts. The concentration of the sanguineous fluid to these parts undoubtedly invigorates them; and, consequently, hastens the progress of cure, and renders it more certain, if no other results may be anticipated; and if there shall arise an inflammation within the first week or two, no anxiety should be felt either by the surgeon or patient, if there be no tendency to ulceration, as it is easily controlled at any time. When the inflammation becomes troublesome, the truss may be removed for a day or two after going to bed at night, and the parts bathed with cold water, or a wash composed of equal quantities of alum-water and brandy, and again in the morning; but the truss should be reapplied before the patient rises from a recumbent posture. Sometimes it may be judicious to introduce under the block three or four folds of soft linen for a few days, until the inflammation subsides, when it should be removed; and if slight ulceration should ensue, by dusting the parts with a little Lapis Calminaris (impure carbonate of zinc,) it will soon be removed. This result, however, is not to be expected in any other form of the disease than Direct or Ventro-Inguinal Hernia, as severe pressure is seldom required in any other variety. These observations are introduced in order that a provision may be made for every emergency, and for no other reason; because the inflammation arising from the use of these instruments, seldom demand but little attention. The patient should be required to wear the truss night and day for three or four weeks, avoiding any severe effort in lifting or muscular exercise, and to call upon his physician frequently in the meantime. During this period there will generally be sufficient contraction of the inguinal rings to form a partial barrier to the

descent of the bowel, and which the surgeon should ascertain by occasional examinations, in passing his forefinger, with the scrotum inverted before it, up to the rings. After this period the patient may take off his truss at night, but not until he lies down, nor should he rise in the morning before it is re-applied. The surgeon may occasionally meet with circumstances which will embarrass his feelings in the treatment of this disease, and so he also will in the treatment of any other; but he will generally find that it is the patient who causes them, by a neglect of the directions given him; however, most of these difficulties may be avoided by laying down prompt and rigid rules to govern the patient, and by his adherence to them. The diet need not be essentially changed, but all spirituous liquors should be proscribed.

THE INGUINAL TRUSS APPLIED.



CASE I.—*Common Inguinal Hernia, from an unknown cause—of many years standing—Age of patient twenty-seven years—had worn several instruments without perfect retention of bowel prior to* 1835.—*Radical cure in twelve months.*

TEST OF CURE.—*Discontinuance of the instrument for more than four years, with active exercise.*

MR. ——, merchant, aged 27 years. Accident occurred when a lad at school; cause unknown. An instrument was applied as soon as the disease was discovered, and he had constantly worn some variety of truss until he came under my care, Jan. 16th, 1835; but his bowel had never been retained for any considerable length of time by any of them.

20th.—The common Inguinal truss applied.

25th.—The patient has had one descent of the bowel since the last date. An instrument with a stronger spring substituted.

November 13th.—No protrusion has taken place since last date. Truss worn with ease. The parts have exhibited scarcely any marks of irritation.

July 25th, 1836.—I have not seen the patient since November last. Dr. Hulme met him to-day. He stated that he relinquished the truss six months ago. He had been travelling for some months on horseback, in the western country, often at the rate of fifty miles a day, and says that he has not suffered any inconvenience from his long journey, nor has he perceived any symptoms of his former disease.

September 12th, 1840.—This patient is now partner in a wholesale house in this city. I have seen him frequently during the last four years. He has had no occasion to resort to his truss—nor has he felt any inconvenience from his former rupture, although he has indulged in gymnastic exercises freely—rode on horseback, and exposed himself to all the sports common to the athlete.

CASE II.—*Common Inguinal Hernia, of about one year's standing; age of patient 27 years; radical cure in seven months.*

MRS. ——, aged 27. Constitution vigorous. Patient arrived from Ireland in 1834. She has been accustomed to much exercise. While preparing for her voyage she was suddenly seized with pain in the right inguinal region, and a small tumor appeared there; but the complaint received no attention until October 1st, 1835, when, having suffered several times from partial strangulation of the bowel, she consulted Dr. ISAAC PARRISH, by whom she was referred to my care.

October 14th.—Saw the patient for she first time. Tumor about as large as a hen's egg; painful to the touch. She had walked several squares in the morning; states, that after such exercise she is accustomed to faint, and is generally compelled to lay in bed two or three hours, to recover herself.

20th.—Applied the common Inguinal truss, in the presence of Prof. HORNER, and Dr. CRITTENDEN of Cincinnati, who kindly accompanied me. Prof. HORNER reduced the bowel. The instrument being applied, the patient rose from the bed. The retentive power and adaptation of the truss were fully tested and approved.

21st.—Called and found the patient attending to her domestic concerns. The truss gave no pain, and occasioned but very slight soreness. Patient says she feels comfortable.

22d.—Considerable irritation beneath the block.

24th.—Patient complains of soreness—did her family washing this day.

26th.—Examined the parts; found them considerably inflamed, particularly above the pubic bone. The patient does not complain of the pressure; has been to market to-day.

31st.—Removed the block, and substituted one rather larger.

November 10th.—Instrument worn with ease. The retention has been perfect since the first application.

March 4th, 1836.—Instrument discontinued.

30th.—Examined the patient; no perceptible difference between the two sides. She is now, by calculation, in the seventh month of pregnancy.

April 11th.—Confined to her bed with false labor pains.

19th.—She has had an extensive abscess in the left mammary gland, which I laid open this day; Dr. R. COATES in consultation.

May 4th.—At 2 o'clock, A. M., the patient was taken in labor; the pains were very severe. After the rupture of the membranes the labor was very rapid. It terminated at 5 o'clock, P. M.

5th.—The patient had severe after-pains during the night.

11th.—Visited the patient in company with Dr. SMART of Maine. Found her going about as usual. Dr. SMART pronounced her free from rupture.

July 11th.—The patient continues perfectly well.

September 10th, 1840.—Soon after July 11th, 1836, this patient moved to a distant part of the city. I saw her but seldom until June 20th, 1837, when I was summoned in the night to visit her. I found her under the care of two physicians, and learned that she had been gradually declining for several months past. I saw her daily for a short time; she was not wearing the truss. I examined the parts carefully several times, but I could detect nothing unusual in the state of them. She assured me that no return of the rupture had taken place. She died on the 27th of June. Every effort was made to gain an autopsy, but without effect.

CASE III.—*Common Inguinal Hernia, of several years' standing; age of patient* 12 *years; radical cure in ten months.*

TEST OF CURE.—*Discontinuance of the truss for nearly five years. Ventro-Inguinal Hernia produced by an accident; now under treatment.*

MASTER E. ——, aged 12 years: constitution vigorous; frame slender: accident occurred several years ago: attributed by the parents to a fall from a fruit tree; but the patient states, that the tumor first appeared during a ride on horseback soon after the fall.

November 27th, 1835.—Applied the common Inguinal truss.

28th.—Truss worn during the night. Patient slept well.

December 4th.—Parts beneath the block slightly reddened.

April 1st.—Examined the case; no perceptible difference between the two sides: the retention perfect from the first. He has

indulged in his usual sports without restraint, during the frost and snow of last winter. States, that since the four or five first days of the treatment, he has been scarcely conscious of the presence of the instrument.

June 22d.—Examined in the presence of Dr. R. COATES. Both sides present, in all respects, the same appearance. Patient has frequently laid aside his truss for short intervals: has bathed in the Delaware, and has used other exercises without it. Dr. COATES advised the discontinuance of the truss, believing the case to be radically cured.

September 14th, 1840.—This lad has continued well of his Inguinal Hernia up to this date—but about a year ago, while travelling with his father in the west, in consequence of an accident, a protrusion of the bowel took place, at the external abdominal ring.

He returned to the city, and is now under treatment for Ventro-Inguinal Hernia.

CASE IV.—*Mr. ——, stone-mason, aged 20 years; Strangulated Inguinal Omental Hernia, from lifting a heavy stone. Sloughing of the omentum, and radical cure by the use of the Inguinal truss.*

TEST OF CURE.—*Removal of the instrument, though using laborious exercise, for three years.*

DEC. 29th, 1836.—I was requested this day to vistit the patient, whom I found laboring under a strangulated omental hernia. The tumor occupied the whole length of the Inguinal canal, but did not descend into the scrotum. This tumor exhibited an inflammatory appearance, was hard to the touch, giving pain on pressure, and had the peculiar doughy feel which usually attends omental protrusion, and some abdominal tenderness which was accompanied with febrile action in the system. It had been about five days since the accident happened; the patient had been attended by another practitioner, who administered laxative medicines, and had ordered eight ounces of blood to be taken from the arm two days previous. Taxis had also been employed, but to no purpose.

Believing it yet possible to reduce the omentum, I ordered leeches to the part, followed by saturnine lotions, brisk cathartics, and rest.

30th.—Bowels freely opened; abdominal tenderness removed; febrile excitement abated; inflammation and tenderness of the tumor less, but the parts felt very firm at the inter-abdominal ring. I endeavored to reduce the tumor by taxis, but with no effect. Cold applications were applied.

31st.—The patient was bled again from the arm, ℥ xiv. I instituted taxis, no relief was obtained thereby. The tumor continued firm at the ring.

January 2d, 1837.—Ceased all application.

3d.—A slight softening at the centre of the tumor was observed. I ordered warm infusions.

4th.—Bread and milk poultices were applied.

9th.—The bread and milk poultices having been continued since the 4th, the tumor now fluctuates quite freely.

11th.—The tumor discharged itself by a small aperture, which was enlarged by the lancet.

13th.—The sphacelated portion of omentum was removed, leaving a cavity.

14th.—Gradual pressure was applied by a compress, and on the 17th, an Inguinal truss with a very light spring was substituted.

23d.—The patient was permitted to walk about the room with the truss on.

30th.—He was allowed to leave his room, and in a few days he returned to his business, still wearing his instrument by my orders.

Shortly after this, the young man left the city to fulfil an engagement in the country, and I did not see him again until—

May 6th.—When I was requested to visit him at his father's house, where he had been brought from the country, having received a severe injury of the knee-joint. He was not wearing the instrument.

10th.—I asked him when he threw aside his truss; he replied, "a month ago." He also informed me that he had never felt the smallest inconvenience from his rupture since he had been permitted to leave his room.

After his recovery from the injury of his knee, he returned to the quarry. I have seen him occasionally since. He is radically cured.

September 14th, 1840.—I saw this patient a few days ago. He has had no symptoms of his former malady, and has continued his vocation as a stone-mason.

Ulceration of the gums and exfoliation of the Alveolar processes of children—resulting from general debility or defective nutrition. By Prof. C. A. Harris, *M.D. Surgeon Dentist, Baltimore.*

The gums and alveolar processes of children are occasionally attacked by a very peculiar and singular form of disease. Several cases of which, having come to my notice, I have thought that a description of it might not be uninteresting to the medical reader, and especially as it is a disease, that, if I am correctly informed, has never been noticed by any English or American Medical writer. It has, however, been very accurately described by several French Authors,—particularly by Delabarre, whose opportunities for observing it, in every variety of form, seems to have been very ample. The description given of it by him, accords so well with the cases which I have seen, that I shall quote what he says respecting it.

"There is a disease that is very rare among the wealthy, but very common among the indigent. It especially manifests itself about the period of the molting of the temporary teeth. It is frequently observed on children that appear to be sound, as well as on those of scrofulous or scorbutic affections.

"Can it be a peculiar disease still unknown, M. Duval has already noticed this disposition: among the great number of children that are continually brought to the Orphan Asylum, I have frequent occasion to observe singular compilations of this affection, which are modified according to the differences of the strength, sex, and idiosyncrasies of the different subjects. In some the lips and gums are of a beautiful, bright red color; in others the lips are rosy, though the gums are pale; or both of them are reddish, and much swollen. Sometimes also the gums are pale and the lips of a deep red, there is besides no scorbutic or scrofulous symptoms; frequently the child is robust and appears to be quite well.

It begins to experience troublesome itchings in the gums; they ulcerate around the necks of the temporary teeth, which become

separated from them, and somewhat loosened. If the symptoms continue, the evil is propagated, a burning pain is felt in some parts of the buccal membrane that lines the cheeks; and ulcerations of a greater or less size are formed there. To these evils are joined some others—painful swellings in the glands that environ the lower jaw, the entire separation from the gum, and loss of undecayed teeth, whose roots are frequently surrounded with a yellowish mucous tartar. I have even known portions of the alveoli to exfoliate, and then the cure is effected almost naturally. Whatever may have been the importance and continuance of the local maladies, I have observed that, if children reach the seventh or eighth year, their second teeth are not deranged by the cause that occasioned the loss of the first; they are only badly arranged by reason of the want of developement in the maxillary bone, which shows that during the disease the general ossification is carried on but slowly."

The symptoms as here described by M. DELABARRE, correspond for the most part with those of the cases which I have seen, except that they present a somewhat greater variety; the color of the gums and lips in the cases that have come to my notice, were always that of a deep red, sometimes bordering on purple. The separation of the gums from the alveolar processes, was, in every instance preceded by ulceration of their edges. The matter formed, was at first, muco-purulent, but afterwards became ichorous, and increased the irritation of the parts with which it came in contact. As the gums separated from the sockets of the teeth, it denuded them of their periostea, and insinuated itself into the alveolar cavities and caused the destruction of their membranes.

The disease having arrived at this stage, necrosis and exfoliation of the alveolar processes soon followed—carrying away with them the deciduous, and sometimes the embryo adult teeth. In one instance four of the second teeth that had come through the gums were removed with their exfoliated sockets.

As it regards the effects produced upon the permanent teeth by this affection, they were in the few cases that have fallen under my notice, decidedly injurious. In some instances their enamels were covered with dark spots; in others they were corroded, and when the disease had occurred early in life, their bony structure appeared soft and chalky, and their liability to be acted on by

chemical agents greatly increased. My observations, therefore, on this subject differ somewhat from those of DELABARRE's. He tells us that, "frequently the child is robust and appears quite well." In all the cases which I have seen, the general health was evidently affected, and in some very considerably. Usually, the pulse was small and quick, the skin dry and husky, the bowels constipated, much lassitude of body, and great disposition to sleep. These symptoms, however, I have never known to precede the local affection, but seem rather to have been symptomatic of it.

Continuing the subject, M. DELABARRE says, "Chilblains of a bad character are the portion of these children; their skin is terreous or wan, the flesh of some is soft, their eyes dull, their habit of body languid, and finally have true scrofulous obstructions. Believing that I have, in these cases, found that the general weakness depends on that of the digestive organs, whence result divers degrees of alterations in the vivifying properties of the fluids, I employ with success, bitters and tonic powders, such as Jesuits bark, the small centaury, &c."

I would here just remark, that I have never meet with an instance of this disease in which there was not evidently a scorbutic tendency of the general system, and am disposed to believe, from the very nature of the affection, that, although there may exist in some cases a scrofulous diathesis, that this always predominates.

"For the local treatment of the gums," says our author, "I recommend acidulated gargles, or those in which have been dissolved some grains of sulphate of zinc. If these means are not sufficient, I have the ulcerations cauterized every day with dissolved *argentum nitratum*. Many may be cured by these simple remedies; but I have sometimes been obliged to have recourse to the actual cautery, from which I have derived great advantage. Several, however, in whom the disease was very violent, have sunk under it, after having experienced the following symptoms:

"General swelling of the stomatic membrane, ulceration on one side alone, prostration of strength, slight pulse, redness of the affected side, avidity for food, burning thirst, then, at the expiration of three or four days, a gangrenous spot, resembling an anthrax either below the cheek bone or about the lips; rapid increase of the spot, which at first lived, becomes black the same day, and, when grown to the size of a five franc piece, separates in the mid-

dle, and forms an obstinate ichorous ulcer, whose pale edges roll upon themselves like flesh exposed to the action of a very brisk fire. The whole of one side of the face is soon entirely devoured; the bones are uncovered as well as the roots of the teeth, which, however, are not carious but fall out of themselves; a hectic fever consumes these unhappy beings, to whom death is too tardy a relief. This sad scene has passed before my eyes in the cases of two children, one of them eight, and the other a girl of nine years old. Death seizes them between fifteen and twenty days after the attack of the first marked symptoms, notwithstanding all the rational means employed, such as tonics and caustics. These are the characteristics, which an inveterate cancerous affection, with all its horrible scent, would not exhibit. This affection has been so well described by M. BARON, that we cannot but profit by his reflections and try the means recommended to be employed by him in similar cases.*

"In general, the female sex is more subject to affections of this nature than the male. The dissections, that I have made of several children, attacked with this disease and in different stages of it, have always presented me the bones singularly softened. Those of the jaw, especially, are very easily cut with a scalpel. There is consequently but a very small quantity of calcarious phosphate in them, but their teeth do not appear to be the less hard on that account; on pressing the cutting edges of these, which have shot up, we perceive them bend, and, as it were, sink again into the jaws.

"Some authors, it seems to me, have referred this kind of disease to a sort of scrofula; but, for reasons, which I find myself compelled to detail, I do not believe this opinion can be adopted, because the seat of this last affection is in the lymphatic, whence it may be propagated to different systems, while the affection, the symptoms of which I have just described, has its seat in the *organs of nutrition, and, in the fluids that are conveyed to them.* Moreover in the beginning of the disease, there are no obstructions that can reasonably be regarded as of a scrofulous nature, but such may occur as it gradually progresses and propagates the disturbance in all the secretions.

"This vicious disposition, which I have frequent opportunities of

* Vide le Bulletin de l'Ecole de Medecine de Paris, 1816, page 136.

observing in the asylum to which I am attached, is sometimes inate in children, and sometimes acquired by their suffering great privations of nourishment. In the former case they are melancholy and grow for a long time without complaining of any pain; both their dentitions are very tardy, the bones of the jaws as well as those of all parts of the body, are exceedingly slow in their development, the membrane of the lips and mouth is pale, the saliva mucuous; these children are meagre, their skin soft, which has led me to adopt the word *astheny*, to denote this state, for it designates the want of strength that exists in all the tissues of these little beings, whose nutrition is effected with extreme difficulty, without there being any possibility of attributing the cause of it to a distinct disturbance of any organ separately considered.

"There appears, therefore, a want of vitality in all the apparels which causes the child to waste away daily and the natural functions to be performed with a sort of supineness. It has no appetite, is frequently constipated; at other times has diarrhœa, but no fever; it is timerous and nervous, has a melancholy air, and in short excites a sentiment of compassion. It seems as if sanguification could not be effected; for in these subjects the blood is very serous and almost colorless. After what has been said, it is not surprising, that the organic exhalents of the bones should not supply them with scarcely any calcareous earth, but with a material, that is without consistence, acidulated and rather destructive, than reparative.

"Exercise in the open air, generous wines, sometimes even a little alcoholic liquor, and a diet not exuberent but consisting of succulent viands, form a part of the regimen, which, in these cases, it is indispensable to follow. It is necessary to prohibit milk and acid or aquious aliments. To arouse the vitality, I have constantly and successfully employed, the *juice of cruciferous plants, the guinea in powders*, but with this last medicine I think useful to unite opium, which diminishes its action on the digestive organs.

I banish the use of ptysans, which generally fatigue the stomach; visicatorys and purgatives are employed but with much circumspection, and only when there is some reason for displacing an irritation communicated to some interior organ."

Tratié De La Seconde Dentition.

Having now quoted what M. DELABARRE says respecting this

most singular affection, little remains to be said by me on the subject. In conclusion, however, I would observe, that none of the cases in which I have been consulted were of as aggravated a character as some of those which he has described. Except in three instances in which exfoliation of the sockets of several of the teeth had commenced previously to my seeing the patients, the disease yielded to astringent, detergent and acidulated gargles, the application of *nitrate of silver*, in strong solution, to the ulcerated edges of the gums, aperients, tonics and a gerous nutritive diet. The others were cured soon after the completion of the exfoliation of the dead sockets, by similar treatment and the restorative operations of the economy.

From the cases which have fallen under my observation, I have been induced to adopt the opinion advanced by the author whose remarks on the subject I have quoted, that the disease is the result of general debility, occasioned by privation or a want of proper nourishment, for, its occurrence so far as my knowledge extends, is always confined to the indigent. I am, however, at the same time, inclined to the belief, that it is favored by a constitutional tendency of the general system, though notwithstanding DELABARRE seems to think otherwise, and that without this, other causes would be insufficient to produce it.

To the ordinary spongy and inflamed gums, or scurvy, or conjoined suppuration, as the affection is sometimes called, the disease in question bears but little analogy. That affection is the result of local irritation, favored, it is true, in many instances by a general scorbutic diathesis, produced by salivary calculus, decayed or dead teeth, or roots, or a vitiated state of the buccal secretions, and its progress, compared with this is very slow. In that disease, the matter that is formed by the suppuration of the gums is, in most instances, healthy pus, but in this, although at first it is muco-purulent, it soon becomes ichorous and intolerably offensive. The sockets of the teeth too, by that affection are never suddenly laid bare, but by this they are often in a very few days denuded of the gums, deprived of vitality and caused to exfoliate. To the attacks also of that disease, all ages, classes, and conditions of people are liable, whereas, to those of this, the indigent alone are subject, and these only during the earlier periods of life.

NAVY REPORTS.

Baltimore, ——— 1840.

My Dear Sir:

As you have been pleased to say the accompanying reports are worthy of a place in your valuable Journal, having obtained the permission of the Navy Department, I take pleasure in placing them at your disposal.

It has been suggested by a friend, (an officer high in rank,) that if any circumstances connected with clothing, exposure, &c., were supposed to form a peculiar liability to disease in the crew of the Erie it would be worthy of notice for the purpose of bringing it to the consideration of officers, who may be placed in charge of national vessels; but I can scarcely suppose that any deviation existed on board the Erie, from the discipline, diet, internal regulations, &c. of the other ships of the squadron, as the orders of the Commander in Chief, were calculated to bring the government of all the ships under a uniform system.

Care was taken on board the Flag-ship to muster the crew with their flannel on at night, whenever the diurnal alterations of temperature indicated the utility of it, and I am persuaded that the sagacity and vigilance of Dr. Spencer, directed him to every subject within the sphere of his duties whether prophylectic or curative.

During the contest of the Federalists, who had possession of the city, and the Centralists, who were advancing to attack them, it was necessary to leave a ship off the place, (Tampico,) at an unhealthy season, and the following general directions intended for that ship, were subsequently sent to all the others by the Commodore. I remain, very affectionately yours,

ISAAC HULSE.

To the Rev. Dr. G. C. M. Roberts,
Chairman Ed. Com. of the Md. Med. and Surg. Journal.

Off Tampico, U. S. Frigate Macedonian,
April 13, 1839.

Sir:

The following sanatory measures are respectfully suggested and recommended to the attention of commanders of ships of war, destined to remain in the presence of Tampico, in the months of May, June and July.

1st. *Exposure to the sun*—frequently occasions a predisposition to fever, by its effect upon the brain, diminishing the nervous energy; if such exposure be succeeded by exposure to night air along the marshes of the river, the liability to bilious and malignant fevers is greatly increased.

2nd. *Exposure to getting wet*—is a powerfully exciting cause of disease, by suddenly checking perspiration, constricting the capillary vessels and throwing the circulating fluids in upon the great organs, thus producing general oppression, and immediate disorder of important functions. The frequent occurrence of showers here in the summer months, will show the propriety of avoiding boat duty as much as possible.

3rd. *Exposure from Fasting.*—Men are more susceptible of the action of morbific causes with an empty stomach, than when they are fortified with a moderate meal. It is risking health to send men away in the vicinity of marshes before breakfast.

4th. *Diet.*—It is rarely seen that fresh provisions are beneficial to a ship's company more frequently than twice a week. Oftener than this they are very liable to produce diarrhœa and dysentary. The greatest precautions should be taken against the introduction of beef in a tainted state.

5th. *Fruit.*—An occasional moderate supply of acid and subacid fruits is promotive of health, but we have seen a too liberal use of them interrupt the healthy action of the stomach and produce deleterious effects.

6th. *Water.*—Men should be allowed to drink as much pure water as they please.

7th. *Cleanliness.*—The perspiration from men's bodies upon a crowded berth-deck in hot weather, renders the air impure; the ill effects from such a source will be avoided by having frequent wash days, and requiring the men to wash their bodies every day or

two in the morning watch. In dry weather, out of the influence of the marshes, housing the awnings at night and allowing a few of the crew to sleep on the spar deck will afford much relief.

8th. *The berth deck should be kept as dry as possible*—foul odours and vapours are more apt to affect health in a humid than in a dry state.

9th. *Letting water into a ship to be pumped out* is more likely to render unhealthy than otherwise; this practice does not make the timbers of a ship cleaner; whereas, it wets her under the ceiling to a greater extent than she otherwise would be wet, and promotes the putrefaction of vegetable matter in the lower parts of the ship,—besides, in a hot climate, every particle of sea-water is teeming with animalculæ, which it is desirable to exclude.

The Chloride of Lime sprinkled about the hold and spirit-room two or three times a week, will decompose many kinds of foul air and contribute to the health and comfort of all on board.

In a ship which has recently come upon the station, attention to these subjects is rendered the more imperative, for during the first season in a tropical climate, the ship's company are more or less subject to the process of *acclimating*.

I have the honour to be, &c. &c.

ISAAC HULSE,
Surgeon of the Fleet.

To Commodore Wm. Branford Shubrick,
Commanding the U. S. Naval Forces, in the W. Indies and Gulf of Mexico.

REPORTS OF DISEASE *occurring on board the U. S. Ship* ERIE, *from the 1st of January, to the 22d of March,* 1839, *inclusive.*

DISEASES.	*Remaining the 1st of January.*	*Admitted during term.*	*Discharged cured during term.*	*Died.*	*Transferred.*	*Remaining at the end of term.*	REMARKS.
Catarrh,	1	8	8			1	In February principally.
Cholera Morbus,		2	2				In course simulating Dysentery.
Constipation,		3	3				
Contusion,		4	4				One of thumb simulating anchylosis of 1st phalange.
Cynanche,		2	2				
Debauch,		2	2				Threatening delirium tremens.
Diarrhœa,		15	11		3	1	Bilious and Catarrhal.
Disord. Bilious,		3	2			1	
Dislocation,		1	1				Of trapezium & 1st metacarpal bones.
Dysentery.		16	9		6	1	4 transferred convalesent 1 remaining do.
Eruption,		1	1				From gastric disorder, (vesicula.)
Furaenculus,		2	2				
Fever,	2	5	6		1		Convalesent when transferred.
Gastritis,	1	1	2				
Hernierania,	1		1				Case of long standing.
Injury of ancle,	1	1	1				Violent strain of ligt. and extensor tendons.
Phlegmon,		1	1				
Rheumatism,	1	2	3				One discharged the service at his request and my recommendation.
Ulcer,	1	3	3			1	
Wound,	2	2	2		2		
Total,	9	74	66		12	5	

Average daily number of sick, 9½ nearly—number of crew 168 to 164, increased temporarily by a barge crew and five or six musicians; none of these, however, were on the list but one musician, with incised wound of fore-arm, wounding the ulnar nerve and flexor tendons; he was transferred to the Macedonian—wound healing slowly. He was twice affected with incipient symptoms of Tetanus—with costiveness of the bowels—difficult deglutition, pain under sternum, and a sense of its being drawn towards the spine. These symptoms were removed by brisk cathartics—followed by free doses of Dover's powders, and generous diet with wine. The Erie arrived in Pensacola on the 10th of January, from a cruize down the Gulf of Mexico—previous to her sailing for this port we had lain more than a month in the port of Vera Cruz. Except during the northers, the weather was fair—warm

and pleasant days—the nights cool and *moist* while at sea in January. Thermometer ranged from 60° to 80°, averaging about 68° taken at sun-rise, noon and sun-set. Lowest observed in January, 37°, highest 79°—lowest in February, 38°, highest 70°. In all diseases occurring in the last quarter, disordered function of the liver, has been manifest. The greatest degree of sickness in the crew, was in the latter part of February and in March. First diarrhœa, then dysentery. The disease was of two characters—frequent and copious discharges of thin, dirty, yellow bilious matter—reddish tongue—dry skin—malaise and acidity of the stomach, flatulence and sourness rather than pain in the bowels. Discharges quickly debilitating, with occasional cramps and nervousness. Blue pill with Rhei, chalk and opii was administered—discharges becoming less frequent, acidity and sourness relieved. Oleaginous mixture with demulcents, generally brought away either scybalæ or clayey stools—an occasional Blue pill effected convalescence. They convalesced slowly however—the least indigestible food producing relapse. When the discharges were healthy yet too frequent, columbo with small doses of opii was given. In the other form the discharges were of a thin mucous character, either copious or frequent—nausea—fulness and weight in the bowels—without griping or tenesmus—tenderness upon pressure along the colon—patient previously costive. A full dose of Cal. Oil, with a little Tinct. Opii, unloosed the bowels, and a little Blue pill with either pulv. Ipecac. or pulv. Doveri, unlocked the secretions of the liver.—Copious dark stools—then bright—the patient convalescing. One of the cases of Cholera Morbus, terminated in diarrhœa of the latter character, with some tenesmus. One of the cases of diarrhœa sent to the Hospital, was a case of long standing arising from dyspeptic affection. One case sent to the Hospital for affection of the Bladder, and one a recent case arising while breaking out the ship. The case of fever transferred, commenced with diarrhœa of the former character, and is here subjoined, and is somewhat of a mixed case.

Henry Blackstone, Seaman, admitted on the 7th March, had 3 or 4 stools daily, for a week previous to admission, of thin yellow character—has head-ache over the eyes—vertigo in sitting posture—eyes slightly injected, pupils dilated slightly—tongue coated white—papillæ enlarged of bright red, protruding through

the coat—pulse small and soft, temperature of surface below natural standard—pain and tenderness under right side—no pain upon pressure over abdomen—feels nervous and weak—gave Blue pill grs. iij, pulv. Doveri gr. v.—in p. m. Cal. gr. j. Rhei gr. v, Opii gr. ss. Night skin hot and dry, without increased action of pulse, less head-ache and pain in side—had 3 or 4 stools in p. m. of same character—drinks toast water and flax-seed tea. The 8th head-ache, pain in side—heat of skin increased—drowsiness, pulse quick and frequent—had one stool, thin and dark. Ord. in *a. m.* Cal. gr. j. P. Dov. grs. v—in *p. m.* and night, the Chart. Cal. Rhei and Opii. Fever declining in evening—pain in head and side at intervals, no stool since morning, urine small, high colored and difficult. 9th. Remission of Fever—flow of saliva without swelling of gums, tongue and general surface moist. Oleaginous mixture ʒ ss, every two hours during day—Chloride Soda gargle—less head-ache, pain and nervousness through this day. 10th. Pulse less irritable, urine copious, high colored—no stool yesterday.—Continued Oleag. mixture ʒ ss, every hour and half, flax-seed tea, &c. In evening, common enema—stools more consistent, greenish and dark, pulse more feeble. Pulv. Opii grss. as stimulant.

11th. Fever, pulse more developed—soreness over abdomen generally, especially over Caput Coli and its tract—breath foul, tongue reddish. Resumed Oleagin. mixt. as yesterday—produced nausea—Ord. porter on decline of Fever. Evening repeated enema and applied Blister over abdomen—large stool, bilious; during the night porter.

12th. Slight Fever—tongue cleaning—less pain in bowels, pulse soft and feeble, ord. wine cautiously—passed a comfortable night.

13th. Continued wine—Enema—dark bilious and feculent scybalous stools—evening fever. Spts. Mindereri and wine during night.

14th. Much improved—no pain in abdomen on pressure, tongue clean, pulse feeble and soft, passed during night several large, tenacious, clayey stools—during this day stools healthy.

15th. Convalescing and sent to Hospital. Although this patient had, for a week before admission, a bilious diarrhœa—still was the colon loaded with a clayey matter, the probable cause of the febrile visitation.

The origin of the diarrhœa and dysentary was ascribed to the foul state of the hold. The ship was broken out, and a large quantity of decayed matter removed therefrom. The master being almost constantly in the hold, was affected with dysentery. Since the hold has been broken out no new cases have occurred. I have no doubt the foul state of the hold was the principal cause of these diseases of the bowels.

I saw the patients a day or two after their removal into the Hospital in a purer air. The improvement was too striking not to be remarked. During the breaking out of the hold, the weather was not very favourable, and the drying of the hold and ventilation were not as perfect as desired. The hold was smoked with Sulphur and Charcoal. I am, sir,

Very respectfully, &c.

(Signed,) JOHN C. SPENCER,
Surgeon U. S. Ship Erie.

To Doctor Isaac Hulse,
Fleet Surgeon, West Indies.

Note.—I agreed in opinion with Dr. Spencer, that the foul state of the hold caused the unusual amount of disease on board, and believed with him if it had occurred later in the season, it would have been attended with a serious amount of mortality. The Erie was a remarkably healthy ship through the summer, and lost none from the fever which visited the squadron in the autumn.

I. H.

Report of cases of Dysentery occuring on board U. S. Ship Erie.

Case 1st.—John Dougherty, Seaman, admitted February 19th. He had then frequent, slimy and whitish discharges from bowels, urine high coloured—Tormina and Tenesmus—skin hot and dry, pulse rather quick—tongue furred white—thirst—slight head-ache, &c. &c. Ordered Blue Pill and Dover's Powders twice during the day. Feb. 20th, discharges same—complains of soreness over Epigastrium on pressure—no material change in pulse or temperature. Ord. Blue Pill, and two hours afterwards, Ol Ricini ʒ ss,

allowed only Gum water as drink. Feb. 21st, discharges frequent but Bilious—urine white—otherwise the same. Gave Pulv. Doveri grs. x—ter in die—Flax-seed tea only as drink. From this time he continued to improve until Feb. 26th, when he was discharged to duty.

On the morning of the 27th, the disease returned, and of a more aggravated character, it having been attributed only to some irregularity of diet. His discharges during the previous night had been frequent, slimy and greenish—pulse small—tongue furred white—Tormina and Tenesmus—skin below the natural temperature, &c. Ord. Blue Pill et Pulv. Doveri, at 7 *a. m.* At noon, skin hot and dry—severe pain in small of the back—discharges same. Gave the above powder with Pulv. Ipecac. gr. ss. *Evening* skin still hot and dry—griping pain in bowels—stools small and slimy. Ord. Enema of Starch and Tinct. Opii.

Feb. 28th, sleep disturbed on account of frequent discharges from bowels, composed principally of slime and blood—pulse soft, tenderness on pressure over abdomen—skin cool and moist—pain in head at intervals—tongue furred white—nausea, &c. Ord. Enema of Starch and Tinct. Opii. *Evening*, had two or three small slimy stools—Ord. Pulv. Opii et Ipecac. *a. a.* gr. ss. at $7\frac{1}{2}$ and $10\frac{1}{2}$ o'clock, together with Enema of Flax-seed tea and Tinct. Opii.

March 1st, no material alteration—pain and soreness on pressure over abdomen continuing, applied Blister in evening.

March 2d. Blister drew well—feels more comfortable—discharges much the same—pulse soft—skin rather warm.

March 3d, discharges not so frequent, more fœculent and dark, tongue gradually cleaning—skin cool and moist. Gave Blue Pill et Pulv. Doveri at night.

March 4th. Improving slowly—complains of no pain in bowels, pulse soft—tongue cleaning—no fever—discharges more natural. Ord. Pulv. Doveri grs. v, ter in die.

March 15th, up to the present time he gradually continued to improve, when he was sent to the Hospital.

Case 2d.—John Mulligan, Marine, admitted March 4th for the same disease, although milder in its character. The treatment pursued in his case was similar to that of Dougherty's, and was also sent to the Hospital at the same time convalescing.

Case 3d.—John Gulliver, Seaman, admitted March 9th, his discharges were also frequent, slimy and greenish—tongue furred brown—Tenesmus—skin hot and dry—some pain in head—pulse soft—soreness over Epigastrium on pressure—thirst, &c. Ord. Blue Pill, Pulv. Opii et Ipecac. Toast water only as drink.

March 10th, discharges very frequent and small—Tenesmus—tongue reddish—pulse soft—skin of the natural temperature. Ord. Cal. gr j.—Pulv. Rhei grs. v. Pulv. Opii gr. ss—bis in die.

March 11th, more comfortable—bowels not moved during the previous night—pulse soft—tongue more natural in appearance. Ord. Oleaginous Mixture ℥ ss, every hour and a half, till bowels are gently moved—had one discharge about 11 o'clock, *a. m.*, thin and bilious—also several in *p. m.*, of the same nature—tongue looks better—skin moist—pulse soft. Evening gave Pulv. Opii gr. ss.

March 12th and 13th, continued to improve, only light diet allowed. March 15th. Sent to the Hospital.

Case 4th.—George Hughes, Seaman, admitted March 14, for several days previous to his admission, had had frequent, slimy and whitish stools—tongue now covered with a thick white fur—pulse rather frequent—soreness over abdomen on pressure—pain in head—no appetite—thirst—Tormina and Tenesmus—urine high coloured. Ord. Cal. gr. j—Pulv. Opii et Ipecac. *a. a.* gr. ss, at 11 *a. m.* In *p. m.*, had a stool—less slimy and more natural in appearance—tongue moist—pain in head easier. At 6 o'clock, skin rather hot—thirst—soreness on pressure over abdomen rather diminished. Gave spt. Mindereri ℥ ss. At 8 o'clock skin still hot and dry—pulse moderate. Ord. Pulv. Opii et Ipecac. *a. a.* gr. ss. Flax-seed tea only as drink.

March 15th, had a discharge from bowels early this morning, not slimy, but attended with considerable Tenesmus—still soreness over abdomen on pressure—tongue red—pulse moderate—skin at present cool. Ord. Oleaginous Mixture ℥ ss, every hour and a half till bowels are gently moved. Took Mixture 8 times, had three stools, the first consisted of hard scyballa, the others fœculent and clay coloured. Evening, more comfortable. Gave Blue Pill grs. v., Pulv. Opii gr. ¼. Flax-seed tea as drink.

March 16th. Improving slowly. Sent to Hospital.

Case 5th.—James Kelly, Seaman, admitted March 2d, had frequent, slimy and greenish stools during the previous night. Tormina and Tenesmus—tongue furred white. At 7 *a. m.* gave Blue Pill grs. v.—Pulv. Opii et Ipecac. *a. a.* gr. ss. Bowels moved twice between this and 2 *p. m.*, stools same as before, continued the above powder. Evening, skin moist—tongue cleaner—pulse soft—no pain in bowels.

March 3d, complains of no pain—tongue cleaning—no discharge from bowels since early this morning. In *p. m.* had 3 stools, thin and yellow—Tenesmus—skin dry. Gave Pulv. Opii gr. ss.—Pulv. Ipecac. gr. ¼.

March 4th, tongue slightly furred—no pain in bowels—flatulence—bowels not moved since last evening. Ord. Oleaginous Mixt. ℥ ss., every hour and a half. From this time he continued to improve until March 11th, when he was discharged to duty.

The other cases of Dysentery that occurred on board, differed in no respect from those above mentioned.

Very respectfully, &c.

To Dr. Isaac Hulse,
Fleet Surgeon, W. Indies.

J. C. SPENCER,
Surgeon U. S. Ship Erie.

Sir:

U. S. Frigate Macedonian,
Pensacola Bay, April 8, 1840.

Since meeting with the Ontario and Erie, it has been placed in my power to complete the returns of the cases of disease with their results, in the Squadron for the year ending on the 31st of Dec., 1839.—And they are herewith respectfully presented:

	No. admit.	Discharged cured.	Sent to Hosp. or to other Ships.	Deaths	Remaining sick.
Macedonian, 1 yr. - - - - -	743	680	50	2	11
Levant, 1 yr. - - - - - - -	327	296	23	3	5
Natchez, 1st quarter, - - -	112	97			15
Vandalia, 3d quarter, - - -	317	303	10	2	2
Erie, 1 yr. - - - - - - - -	167	148	17	1	1
Ontario, 1 yr. - - - - - - -	242	207	30	2	3
Warren, 1 yr. - - - - - - -	244	231	10		3
Total,	2152	1962	140	10	40

The Natchez and Vandalia left the Squadron after the 1st and 3d quarters, respectively. I have the honour to be,

Sir, very respectfully,
Your obedient servant,
ISAAC HULSE,
Surgeon of the Fleet.

To Commodore Wm. Branford Shubrick,
Commanding the U. S. Naval Forces, in the W. Indies and Gulf of Mexico.

U. S. Frigate Macedonian,
*Pensacola Bay, Nov.*13, 1839.

Sir:

I have the honour to lay before you a statement of the cases of fever which have occurred in this Squadron since the 30th of Sept. last.

It is worthy of remark that early in the season, indications of sickness appeared through almost every section of the Southern States, and malignant fevers have, during the autumn, reigned epidemic in almost every town and settlement south of Georgia. Neither have habitations, scattered through the pine woods, been exempted from the disease, the cause of which appears to have pervaded the atmosphere to a very great extent. Many settlements have, this year, been fatally visited where autumnal fevers have been hitherto unknown.

The W. India Islands also, agreeably to intelligence received, have several of them suffered much this year from Yellow Fever, and when the Warren left Vera Cruz late in October, there were in the Fever Hospitals of that city, 400 patients.

This general epidemic state of the atmosphere in the United States, is generally supposed to have resulted from the unprecedented drought which has prevailed during the hot months, very little rain having fallen during July, August and Sept., and the streams and springs being lower than they were ever before known to be.

This epidemic influence began to be perceived in Pensacola, before the middle of October, and before the end of that month several cases had terminated fatally with all the symptoms of Yellow Fever.

It was not till after the disease had prevailed a number of days in town that scattering cases made their appearance on board the Levant, and these, generally yielding to medicine, excited very little alarm.

The only case of a malignant character which occurred on board this ship, was that of Assistant Surgeon Green, who had been recently transferred from the Vandalia. He was sent to the Hospital, where he died in three days.

The following table shows the number of cases of fever, some of them malignant, which have occurred in the Squadron since the 30th of September.

	No. of Cases.	Sent to Hospital	Deaths.	Returnd to duty.	Remaining sick.
Macedonian, - - - - - - -	6	2	1	5	0
Levant, - - - - - - - -	24	16	4	9	10
Erie, - - - - - - - - -	4	2	0	3	1
Ontario, - - - - - - - -	23	14	2	11	9
Total,	57	34	7	28	20

The Ontario returned here from Nassau, near the end of October, having on board some cases of fever, of a remitting type, similar to that prevailing at the island at the time of her departure. Her fever cases were sent to the Hospital;—two have died and the remainder have a fair prospect of recovery.

Of the fifty-seven cases of fever embraced in this report, twenty-three were treated on board and thirty-four were sent to the Hospital. Of those treated on board one proved fatal, on board the Levant; the remainder have been restored to duty. Of the thirty-four that were sent to the Hospital, six died, and the remainder have either returned to duty, or are recovering.

Names and rank of the persons who died.

Wm. A. Green,	Assist. Surg'n.	Macedonian.	Died at	Hospital.
Elisha Fitch,	Prof. Math'cs.	Levant.	do.	do.
Walt. Wm. Hays,	Midshipman.	do.	do.	do.
Wm. McManus,	Marine,	do.	do.	do.
John Carroll,	O. S.	do.	do.	Levant.
John Sullivan,	Seaman,	Ontario.	do.	Hospital.
John Latham,	Quarter Gun'r.	do.	do.	do.

The Surgeon of the Warren, has reported no cases of fever.

The most of the cases treated on board were of a mild character and yielded readily to the remedies applied.

On the 8th and 9th instant, frost appeared, since which time no new cases have occurred, and I am happy to learn from the Surgeons of the Squadron that the officers and crews of the different ships are now in excellent health.

Accompanying this are the quarterly returns of the Surgeons of the Ontario and Warren, for the quarter ending the 30th of September, 1839.

I am, Sir, with great respect,

Your obedient servant,

ISAAC HULSE,

Surgeon of the Fleet.

To Commodore Wm. Branford Shubrick,
Commanding the U. S. Naval Forces, in the W. Indies and Gulf of Mexico.

HOSPITAL REPORTS.

Report of Cases of Delirium Tremens, occurring in the Hospital of the Baltimore Alms House, with observations by ALEXANDER C. ROBINSON, M.D. *one of the attending physicians.*

THE frequent occurrence of attacks of that peculiar form of phantomic delirium, usually consequent upon the habitual use of ardent spirits, and to which the term Delirium Tremens is generally applied, the manner in which it sometimes completely masks acute inflammations of the thoracic or abdominal viscera, and the unexpectedly fatal result in some instances of the disease, even under the most carefully conducted remedial means, renders whatever relates to the subject, interesting to the medical practitioner.

It is under this conviction, and not from any idea of their novelty or value, that we have consented to arrange for publication, the accompanying observations, in lieu of the simple reports we were preparing, of some of the many interesting cases of Delirium Tremens, treated in the Baltimore Alms House Infirmary, within the last eighteen months, from notes taken at the period of each visit.

It is only within the last thirty years that the general attention of the profession has been directed to the history, specific character, and appropriate treatment of Delirium Tremens. It is stated that previous to the appearance of Dr. PEARSON's monograph, written for private distribution, as early as 1801, accurately describing the disease under the title of "Brain fever, following intoxication," and suggesting a treatment now generally approved, several medical teachers had noticed its distinctive character, but to Dr. SUTTON who conferred upon it the appellation of Delirium

Tremens, is awarded the merit of having first directed the general attention of the profession to the subject.

The impossibility of referring all the symptoms to any fixed type is proved by the great number of terms used by different writers to designate the disease, all of which appear to have been suggested either by the most prominent symptoms, the fancied seat of the disease, or its remote cause. The following form a very small part of the synonyma of the Delirium Tremens of Sutton. Brain fever following intoxication, (Pearson.) Delirium vigilans, (Hayward.) Encefalitis Tremefaciens, (Frank.) Mania à potu, (Carter and others.) Delirium nervosum vel traumaticum, (Dupuytren.) Delirium cum tremore, (Elliotson.) Delirium tremefaciens, (Copeland.) Brain fever of drunkards, (Armstrong.) Temulence and delirium from intemperance, (Wright.)

The "empirical epithet" suggested by Dr. Sutton, is most generally used, although it is conceded that it by no means expresses the full series of symptoms constituting the disease. But as no one of this series of varied symptoms seems essentially characteristic of the disease, it is as difficult to define, as to name it.

The approach of Delirium Tremens is marked by some aberration in the functions of the general nervous system, or in those of the cerebrum; irritability of temper; wakefulness; loss of appetite; constant restlessness and loquacity; succeeded by delirious illusions, which are accompanied by a manner and countenance, indicative of suspicious timidity, and in some cases by "tremor artuum." The pulse is generally soft, full and frequent; the skin is sometimes hot and dry, but usually bathed in perspiration; the tongue moist, and the thirst very distressing. The mind and body of the patient are constantly in action, and he is disgusted, amused or alarmed, in accordance with the character of the apparitions conjured up by his deranged powers of perception. Early in the attack he recognizes his acquaintances,—is conscious of approaching indisposition, but manifests great anxiety to conceal it; assuring his attendants that he feels quite well, and assigns some reason for his inability to sleep. If soothed by mildness and gentleness, the patient will generally submit to the treatment advised by his physician, but he cannot brook opposition, and disregards cold, heat and bodily pain,—tossing a fractured limb about as if devoid of all sense of physical suffering.

The duration of the attack is various,—a day or two of anorexia,

restlessness, general agitation and watchfulness, with hallucinations and delirium during the night, may appear and cease, or the disease may assume the type of furious mania. The longer this nervous and cerebral functional disorder continues, the greater the liability to organic change of the brain, and permanent mental disorder. There is, however, a natural tendency in the disease, to terminate spontaneously, if the vital powers do not succumb and collapse ensue, as is shown by the cases reported as cured by "animal magnetism" and "expectation"* or quiet.†

In phlethoric subjects, convulsions, succeeded by apoplectic symptoms, are apt to appear, and seriously embarrass the attack.

We must look for an explanation of the chameleon character of Delirium Tremens to the habits and idiosyncrasies of the patient, the cause inducing the attack, and the organic affections which may happen to complicate it.

For the convenience of description, we shall adopt the proposition to divide its various modifications into two species, which, however, pass into each other by imperceptible shades. The one, possessed of a more sthenic character than the other, is apparently connected with excited vascular action in the membranes of the brain, associated with great irritability. The other being a combined state of nervous irritability, and great vital exhaustion. By adopting this distinction, we may avoid overlooking numerous phenomena, and empirically treating one or two symptoms.

If the disease be viewed as one of vital exhaustion alone, or of inflammatory irritation exclusively, the conclusion, in either case, will be only partially correct, and the treatment suggested by it, frequently injurious. Instead then, of adopting a mere routine course in any case, a predominance of the distinguishing features of either species will indicate the general treatment most applicable to it. This predominance of the features of either species will frequently be determined by the attack having been induced directly or indirectly by the abuse of ardent spirits, which is the chief cause of almost every instance of the disease in our country.

The sthenic form, in which there exists delirium, with or without tremor, excited vascular action in the membranes of the brain,

* American Medical Intelligencer, 1838 '9, p. 330.

† British and Foreign Medical Review, No. xii. p. 324.

accompanied by great terror and irritability of temper, violence when opposed, a frequent, full and hard pulse, a warm, perspiring skin, the countenance wild and flushed, and the head hot, attended, in some instances, by constant vomiting, may be regarded as the connecting link between a purely nervous form of delirium, and one depending upon inflammatory action of the membranes, and periphery of the encephalon; for if this excited vascular action of the membranes of the brain be termed inflammation, we must regard it as of a modified character, from its observed tendency in some cases to subside spontaneously.

When the attack is accompanied by decided tremor it is liable to be confounded with the form next described, to which some limit the application of the term Delirium Tremens, and into which the first species insensibly passes.

In the second species, the delirium with tremor from exhausted nervous power, which, as well as the former, was once confounded with phrenitis, we usually find a rapid, weak pulse, a cool surface bathed with a viscous perspiration; a loaded, moist tongue, and a marked derangement of the senses except the touch. The mind is haunted with ever varying fantasies,—giving the countenance an inconstant expression, and leading the patient from time to time into the endeavor to seize some imaginary object upon the bed or floor; foiled in this, he laughs at, or excuses his error, and if directed or persuaded, composes himself upon his bed, to start up again the next instant and repeat similar exhausting efforts, or answer questions imagined to be addressed to him. "During his hallucinations, he almost always thinks himself to be engaged in his habitual pursuits. The post-boy is driving his horses—he cheers them—he beats them; the servant appears to hear the voice of accustomed command, and mistaking some other individual for his master, offers him his services; the watchman calls the hour; the sailor works his ship; the waiter prepares his table. This restlessness continues to increase with the delirium, until exhausted by exertion and covered with perspiration, the poor victim subsides into a temporary quiet."*

The former, or sthenic variety is generally produced directly by excessive stimulation and drunkenness. The other, or asthenic

* British and Foreign Medical Review, No xii.

form indirectly by the same agent. The first being immediately consequent upon intoxication; the second usually resulting either from the abstraction of the accustomed stimulus, or, in case the potations be continued, from the exhausted excitability of the gastric nerves, or of the brain,—manifested by a total want of power in the stomach to retain even a single draught; or a strong disgust excited in the mind of its victim by his experience, that the effects of the accustomed stimulus upon his system are not only no longer agreeable, but extremely distressing. In the list of *causes* we must include besides a protracted debauch in intoxicating liquors, with insufficient food, and such depressing agents, as free depletions, excessive diarrhœa, the shock from a fracture, exposure to cold, &c. the abuse of opium, stramonium, belladonna, and other narcotics. We have witnessed a sudden and violent attack of delirium of several hours duration, originating from the application of the unguent. stramonii, to a large chronic ulcer upon the leg, which could not have been distinguished by one not familiar with the history of the attack, from the delirium with tremor, consequent upon the abuse of ardent spirits. And also another of ten days continuance, during the summer of 1836, in an aged gentleman of abstemious habits, from an exhausting diarrhœa, excited by some ripe apricots he had been tempted to eat. Dr. Gregory refers to a similar attack from metastasis of acute rheumatism.

A protracted indulgence in the use of some particular diffusible stimulant is generally necessary for the production of the disease; but a single excess is sufficient to develop it in a person possessed of a very irritable temperament. But when thus caused, it does not manifest the same obstinacy, or fatal tendency as when preceded by a debilitating course of dissipation. Therefore, not only the quantity of spirits, or other narcotics consumed within the period of indulgence must be considered; but also the constitution of the patient. A habitual tippler, never intoxicated, may suffer an attack.

There can be no stronger predisposing cause than the wretched health of a confirmed drunkard; the disturbance of the digestive organs, the anorexia, the nauseous taste, the thick mucus lining the fauces, the morning vomiting, the epigastric distress, anxiety and flatulence, which, although partially relieved by indulgence in the habitual stimulus, increase, till at length not even tempo-

rary relief is obtained, or disgust is induced. The gastric evils become horrribly aggravated, vomiting, pain and diarrhœa follow; sometimes epileptic fits, succeeded by sleeplessness, restlessness, and dissatisfaction with ordinary occupations: the character changes—the victim of the forming disease becomes irritable, morose, obstinate and impatient, particularly with friends, while he aims to conceal from others the undefinable and causeless anxiety he experiences.

All this may merely manifest the *predisposition.* An attack of Delirium Tremens need not necessarily ensue upon such a disordered state of health; nor need such a condition necessarily precede an attack.

A tremulousness of the hands, and sometimes of the tongue, may exist for a long period previous to an attack; but during one, a "tremor artuum" always occurs, except in the young and robust. In the great majority of instances, the hands are most affected,—occasionally the whole body becomes tremulous as in paralysis agitans.

About a year since we noticed this existing in a very marked manner, in an individual named Ager, a habitual drunkard, 46 years of age, whose tongue was so tremulous as perceptibly to affect his speech, while every superficial muscle, even those of his lips, quivered; particularly when he attempted any voluntary muscular movement.

It is far more difficult to give a faithful description of Delirium Tremens, than for one who has witnessed many cases, to recognize it, even when veiled by a striking resemblance to other analogous affections. It may be confounded with insanity, phrenitis, the delirium of fever and puerperal mania. From confirmed insanity it may be recognized by the history of the case, one being a chronic and the other an acute affection, by the tremulence of hands and tongue, the excessive viscous perspiration upon a cool or warm surface, the soft frequent pulse, the continued vigilance and morbid reference of the patient's thoughts to his habitual occupations, the peculiar phantomic character of the hallucinations, the protracted endurance of unrelaxing muscular effort to get rid of restraint, alternately pursuing or fleeing from the beings of imagination, driving away or shrinking from devils or other spectral illusions surrounding him, avoiding or chasing to destroy reptiles, insects, &c.;

when interrupted, again and again showing himself the sport of a disordered imagination. He recognizes his friends, returning rational answers to their questions and is generally quite manageable by soothing treatment, but rendered impatient by any opposition to his movements. From phrenitis it may be known by the above features, the absence of the hot and dry skin, tense, inflammatory pulse, impatience of light and the injection of the eyes, accompanying a phrenitic attack.

Cases presented in females recently delivered, are with difficulty distinguished from puerperal mania. The known habits of the patient, and the evidences of greater constitutional exhaustion will assist the diagnosis. From the delirium of fever, we can distinguish it by our familiarity with its peculiar features, assisted by the history of the case. The delirium of fever is of a low muttering character; the vital depression is extreme, and has been gradually advancing; instead of tremor, there is subsultus, unaccompanied by the loquacity, incessant quick motion, wild timidity and anxiety of manner seen in Delirium Tremens.

After a first attack recovery generally takes place, if the constitution be strong, but its frequent recurrence diminishes the chances of recovery, particularly if accompanied by evidences of vascular irritation of the encephalon. Any want of correspondence of the pupils, a softer and more frequent pulse, the persistence of restlessness, the supervention of short unrefreshing naps, from which the patient starts with increased tremors or convulsions, are alarming symptoms. This state is said to be more dangerous if caused by opium, as the powers of the constitution are so wasted by that drug. The mitigation of the symptoms, a less frequent pulse, a more natural condition of the skin, accompanied by evidences of sleepiness, are favorable, since they are the natural precursors of a deep refreshing sleep, the only salutary termination of the disease.

The autopsic appearances furnish no positive information as to its nature. In a few cases the membranes of the brain show no change, but in the great majority, more or less opacity of the arachnoid, especially at the base of the brain, is found. This same thickening and lymphatic effusion we have noticed in every case we have examined of confirmed drunkards dying of other acute diseases. The pia-mater may be injected, with slight serous

effusion into the ventricles. These appearances are more marked and manifestly inflammatory in those cases *directly* following intoxication; the vessels, particularly of the velum interpositum, are much congested, and the serous effusion abundant, or even sanguineous.

The lesions of the stomach and the liver, which are found in the uncomplicated cases, are dependent upon the *habits* of the individual. The stomach presents evidences of chronic gastritis, the mucous membrane thickened, mammillated, sometimes softened, and of a dark slaty color; the liver is generally enlarged and granulated, the yellow substance being hypertrophied, or there is a fatty degeneration of the organ, as noticed by many writers.

The want of positive information from the appearances on dissection, has permitted great diversity of opinion as to the nature of Delirium Tremens,—*some*, regarding gastritis, *others*, meningitis, as the pathological state essential to the disease, while a third class admit, that these local inflammations are sometimes attendants, but do not believe them to be essential, regarding nervous exhaustion and sensorial irritability as a more important ingredient. It will go far to accommodate these differences of opinion, if we recollect the distinction insisted on above, between the two forms of the disease; the one connected with vital nervous exhaustion, the other with excited circulation in the brain.

The treatment has been the subject of more discussion than even the nature of Delirium Tremens, and the most opposite means have been advocated by different writers. While some, viewing the disease as dependent upon gastric and inflammatory irritation, use leeches to the head and anus, with ice to the scalp, administering calomel with purgatives, and subsequently hydrocyanic acid; others recommend venesection, followed by sedative doses of tart. antim, or infus. of digitalis; another class advise emetics and the cold douche; and a fourth set the various preparations of opium in the most opposite doses, to which some add stimulants, and others depressing agents.

This want of uniformity is attributable to the contrasted features of different cases; some giving evidence of local vascular excitement; others of nervous or constitutional exhaustion, while these two pathological conditions apparently co-exist in a third class, either predominating more or less.

The practitioner may be led into error by the acknowledged difficulty of distinguishing between the morbid phenomena flowing from vascular excitement of the brain and its dependencies, and such as arise in a great measure, if not altogether, from nervous exhaustion. He should be mindful of this difficulty, and minutely enquire into the history of each case, closely watching its morbid manifestations in order to arrive at correct views of the pathological condition determining the phenomena; and having resolved upon the most advisable treatment in each of the class of cases referred to, he will recognize the remedial means suited to the predominating character of the symptoms, and best calculated to afford relief in the particular case;—ever recollecting that an easy, natural, refreshing sleep is the object to be obtained, and that he has only to prepare the way for this by "lulling the disturbed vascular and nervous systems, and whether this be aimed at, by an antifibrile or antiphlogistic, an exciting or sedative mode of cure, we make the selection with this one object in view."

We seldom observe a spontaneous sleep, accompanied by recovery from a well marked attack; yet it sometimes occurs, as shown by the instances of cure by "animal magnetism," reported in the American Intelligencer, and the twenty-two cases treated by "quiet," reported by Dr. Höegh Guldberg. (No. xii. British and Foreign Review, page 324.)

If Delirium Tremens presents itself after recent excesses in the young and strong, possessed of constitutions unbroken by dissipation, it is apt to assume the garb of a species of arachnitis; the full and tense pulse, hot skin with evidences of cerebral congestion, calling for the loss of blood, which is succeeded by great relief. We have to use general blood-letting, however, with great caution, in consequence of the tendency to constitutional prostration observed in almost every instance.

One case only has presented itself in our practice requiring the use of the lancet; in that instance, occurring in an individual of unusual vigor and firmness of fibre, it was necessary to assist the lancet by free cupping over the epigastrium, and the repeated cold shower bath.

Local depletion may be employed with less hesitation, even late in the attack, whenever indications of local congestion, or undue

vascular action appear. This will be found a most important means of relief in the management of numerous cases. One presented itself to our notice, in which the cerebral engorgement implicated even the vessels of the orbits, giving an unnatural prominence to the eyeballs, accompanied by a heavy, unmeaning stare, expressive of the great mental stupidity, which was further shown by the patient's very slow movements and imperfect comprehension of what was said to him; a condition from which he aroused as from a heavy sleep, to consciousness and recognition before the cups were removed from his neck and temples.

Early in such cases the cold effusion will also be found most advantageous. It not only subdues the morbid heat of the scalp and surface generally, but relieves the congestion of the brain, and dissipates the hallucinations of the patient. Its beneficial influence, manifested in many cases within our observation, was displayed in a very marked manner some years ago, where the subject was a hale, handsome young sailor, who presented himself for treatment, fresh from recent excesses, which had produced a condition of general nervous agitation, with high delirium; great tremor of the hands; head and surface hot, yet covered with perspiration; pulse frequent, but neither tense nor full; eyes injected; constant restlessness; the wildest fancies crowding upon his mind, and leading him to flee from point to point. With the aid of several assistants he was stripped, and placed under the cold shower bath, by which he was so quieted that he composedly dressed himself and retired to bed; his hallucinations controlled, and his hands steadied.

In order to secure this benefit, opium was then administered; but failing to effect the object, it became necessary again to resort to the douche, which once more, seconded by anodynes, induced a refreshing sleep, from which the patient awoke, composed and sane.

A profuse perspiration, if the surface be warm, as it frequently is found to be, and there exists sufficient evidences of general tone of the system to ensure reaction, does not forbid the use of cold effusions. We have observed the skin hot, dry and husky in cases of extreme constitutional exhaustion, and in those of an opposite character, covered with perspiration, evidently not the result of a mere passive exudation, but rather of a great activity of the exhalants of the surface.

After the energies of the system have become measurably exhausted, so that full reaction cannot be promptly re-established; universal tremors, resembling paralysis agitans, are liable to be induced by the cold shower bath, and stimulating cordials become necessary to invite reaction, and thus remove passive, visceral engorgement. When constitutional debility is combined with great mobility of nervous system, violent convulsions may be induced by the indiscriminate use of the cold shower bath, as we once witnessed in a female to whom we were hastily called.

Her constitution had been impaired by protracted habits of dissipation, and upon enquiry we found that the bath had been unreflectingly ordered during her catamenial discharge, for the relief of a wild delirium, arising from the abuse of alcoholic stimulus, and accompanied by apparent evidences of high vascular excitement. Her nervous excitement and delirium promptly disappeared; but a universal tremulousness came on—the catamenial discharge ceased, and in about thirty minutes, violent spasms of the abdominal muscles, with excruciating pain of the back and head succeeded; while her countenance, attitudes and screams, expressed unutterable mental horror. This condition lasted two hours in defiance of the active measures for relief we at once adopted.

When the cold douche has been successfully used, it should be repeated every two hours, or as often as may be necessary to control the returning symptoms, frequently repeated moderate doses of opium or laudanum being administered as soon as the evidences of cerebral vascular excitement are sufficiently subdued, in order to continue the favorable impression made upon the perturbed nervous system. The opium may be combined with grain doses of tart. antim. if the additional sedative influence of this important drug be demanded; a combination from which we have derived very important aid, and which is so highly esteemed by Dr. Stokes of Dublin, and other writers.

We particularly remember an instance in which the Delirium finally yielded to the combined influence of opium and tart. antim. repeated every two hours,—although it had previously resisted for some days, all our best directed remedial means, manifesting unusual violence; the patient for much of the time refusing to take medicine, and successfully opposing all efforts to cup him.

We have never found it necessary to use the antimony in the

large sedative doses recommended by some writers. It is said to have been given in doses of iv. vi. viii. and even xxx. grs. repeated every hour or half hour, with the effect as stated, of immediate lassitude; slight vomiting and diarrhœa; tranquillity of body and mind, followed by the critical sleep.

Yet a case is mentioned by Dr. Eberle, in which xv. grains produced neither vomiting nor purging, but an immediate powerful sedative operation; the pulse becoming small and extremely feeble, the extremities icy cold, and a profuse, cold, clammy sweat breaking out over the whole body, the patient dying in about four hours. Such possible depression from tart. antim. should suggest caution in its use. Some of the French writers object to it in large doses, upon the ground that it is liable to produce inflammation and ulceration of the mucous membranes of the alimentary canal. We have never witnessed this effect upon the mucous coat,—although we have repeatedly administered large sedative doses of tart. antim. in cases of Pneumonia,—with a single exception, in which distinct tart. emetic pustules were seen studding the fauces. In that instance, the medicine having been administered in a thick mucilage of gum-arabic, particles of the undissolved antimony had adhered to the surface of the membrane about the throat.

There is, frequently, a relaxed state of bowels in those laboring under the effects of protracted stimulation. Yet the accumulated vitiated secretions, generally found lodged upon the gastro-enteric mucous membrane, should be removed by purgatives, calculated at the same time to invite the gorged ducts of the liver—long stimulated to excessive secretion—to pour out their morbid contents; thus taking away a source of irritation to the whole system. If there exist general or local nervous debility, stimulants and cordial stomachics should be united with the purgatives. The same may be said of Enemas—so useful in every case by their revulsive influence in stimulating and unloading the larger bowels.

In the management of cases at an early period, we have found emetics an important remedial mean—few having been presented in which we have not endeavored to induce free emesis. Some cases occur in which we require the sedative combined with the emetic effect of Tart. Antim; others, again, in which habitual stimulation seems to have so wasted the susceptibility of the gas-

tric membrane, that, to produce emesis, it becomes necessary to administer active and repeated emetics—combined, perhaps, with stimulants—as ipecacuanha with camphor. But with such exceptions, we have found a strong solution of the muriate of soda, freely administered, a prompt, safe, and generally applicable emetic,—a statement corroborated by the experience of several practitioners of our city, one of whom we have been informed, seldom finds it necessary to do more than give repeated saline emetics, to control the development of Del. Tremens.

We learned the value of this saline emetic during the prevalence of the Cholera in 1834—when we found that, in many cases, and especially one in our own family, it allayed gastric irritability, even when existing to an excessive degree; a single glassfull allaying the retching and nausea—acting as an agreeable anodyne upon the stomach, and allowing the exhausted patient intervals of relief. We have found the tepid solution of muriate of soda, particularly beneficial in the class of cases referred to by Dr. Wright, who remarks: "Our confidence in the final and permanent efficacy of emetics, is abated by the fact, that it is not uncommon to find some of the worst forms of Delirium Tremens, complicated with and aggravated under almost constant vomiting."

In all instances of nausea and vomiting, not connected with evidences of decided gastric inflammation, we have found the irritability greatly alleviated, if not dissipated, by tepid saline emetics. When they proved merely palliative, we have assisted their action by the use of Rubefacients,—Tinct. opii in effervescing draughts,—cupping over the epigastrium, with or without the scarificator, allowing milk and aqua calcis as diet. The saline draughts are particularly applicable in cases of "Temulentia." By their use we have frequently seen the early symptoms of the forming disease at once interrupted, the gastric distress relieved, the general nervous agitation quieted, and sleep induced. We generally direct the patient to gorge his stomach, if necessary for emesis, with the tepid saline solution, following each glassfull of salt and water with one of pure water, and assisting its operation by titillating the fauces with his finger. He seldom refuses to try this remedy when assured that the effect is prompt,—little or no nausea preceding or following the dose. This emetic is of course inapplicable, where the patient has lost his consciousness, and in

the wildness of his delirium refuses to swallow any remedy unless concealed in his food or drink.

If the stage of vascular excitement be subdued, the vigilance and delirium persisting, with advancing evidences of nervous prostration—or, if the attack have occurred in a constitution broken by exposure, want, and exhausting stimulations, presenting *ab initio* the sensorial irritability and vital depression which belong to the second type—the true Delirium Tremens of some—we are to regard opium as our "sheet anchor." But as our object is to "lull and soothe the disturbed state of the nervous system without disabling it, to calm the tumultuary movements of the irritated nervous and vascular systems without expense of power," we will guard against the too energetic use of narcotics—recollecting, that in some the vital power has sunk so low, that, like a flickering taper, an incautious movement may extinguish it, and that "vigor is lost while tumult remains, if evacuants exhaust or stimulants excite unduly." In many cases of this form of the disease, there is much more real constitutional prostration than is apparent to the inexperienced,—the exertions of the patients to effect their purposes being vigorously continued, with well feigned energy, even to the hour of death—tempting us to forget that

> "Their hearts, though stout and brave,
> Still like muffled drums are beating
> Funeral marches to the grave."

The accession of death, if not arrested, being so sudden, and in the midst of some renewed muscular effort, as to take the very attendants by surprise. It is, therefore, most important to remember this tendency to collapse, and studying the degree of vital power in every case, guardedly avoid "extinguishing the remains of sensorial energy," in the effort to calm by opiates.

Before making this effort it is important to subdue any discovered gastric or other local inflammation by a treatment conducted upon general principles. If an acute gastritis display itself, it is to be met by cupping *pro re nata*, assisted by blisters over the epigastrium if necessary, while ice is allowed *ad libitum*, and small doses of hydrocyanic acid are administered at proper intervals. In order to soothe general nervous irritation, and thus

economize the resources of the system, we may be obliged to associate opiates with these means; if the opiates be rejected by the stomach, they may be given per enema.

When we have succeeded in our aim to bring the system into a proper state for the use of opium, we should carefully determine the quantity to be given at each dose. Upon this point the records of medical experience show us that practitioners widely differ. Some of them regarding opium as the "remedium magnum" in Delirium Tremens, direct it in immense doses, expecting to stimulate the nervous system, while its excitability is at first blunted and then exhausted; contending that as no bad effects have been witnessed from the opiate treatment, and as sleep must be induced, "coûte qui coûte," opium should be given till sleep occurs, in doses of two, four, ten, or if necessary, fifteen, and even twenty grains, repeated every two hours. Others fearing that the sleep thus induced might too often prove the "sleep of death," and not judging it advisable or proper thus to decide the alternative of "sleep or death," even in the most protracted instances of vigilant Delirium, guard us against thus abusing this invaluable remedy; yet admit that the quantity of opium necessary to produce a refreshing sleep with all the assistance of the best directed adjuvant means, is sometimes enormous; thirty or eighty grains, in divided doses of two or four grains, repeated every hour or two, having been given with the best effects, in the course of a day.

The importance of the cautious use of opium in the class of cases now referred to, and the value of Dr. Wright's observation that "the effects of excessive doses of this drug, nearly resemble the phenomena of the last stage of the disease, particularly towards its fatal close," was impressed upon our mind some years ago, by witnessing the unfortunate issue in two instances of ten grains of opium, repeated in two hours, under the direction of a young medical gentleman, who had been convinced after an attentive perusal, of the truth of the views of an American writer of high authority, who conceives that sleep must be procured by opium in the protracted cases of this form of Delirium Tremens. Having the recollection of the fatal coma, which soon followed the unusual doses administered in these two cases, under the firm conviction that such a course alone could prevent the fatal exhaustion of the patients; although disappointed in the anticipated

effects of the contrasted doses of twenty, ten and even five drops of the tinct. opii, to be repeated every forty or thirty minutes, as recommended by Dr. WRIGHT, we have never thought it advisable, or found it necessary to venture upon the fearless use of opium, authorized by Drs. COATES and JACKSON.

The result of our experience in the treatment of a number of cases in the Baltimore Alms House since May, 1839, a large proportion of which have presented the type usually occurring after protracted stimulation, in subjects of impaired constitutions, is in favor of a combination of laudanum with the accustomed stimulus, in doses of a table-spoonful every two hours, of a mixture of half an ounce of laudanum, with seven and a half ounces of whiskey or brandy toddy, giving in the intervals, other stimuli, as wine-whey, &c., if symptoms of vital prostration progressed, and doubling the opiate if its influence were not manifested after the lapse of a certain period; depending of course upon the stage of the attack, and the condition of the patient.

The adjuvant remedies upon which we relied, with confidence in their beneficial influence, were the saline emetics; stimulating purgative enemas; cupping, with or without the scarificator, about the head, between the scapulæ, or over the epigastrium, and the immersion of the patient for twenty or thirty minutes in a warm bath at ninety degrees; first suggested to the profession, at least of this country, we believe, in the treatment of Delirium Tremens, by Dr. WRIGHT of this city. We have been taught to appreciate this suggestion by witnessing the delightful effects of the warm bath in cases when the protracted Delirium and vigilance, with progressing exhaustion, had excited our serious apprehensions.

The patient is usually alarmed, violently resisting the immersion, and requiring several attendants to place him in the bath; but after a few minutes remaining quiet, and acknowledging it to be very comforting, in some instances dozing or even sleeping before removed; if not, as soon as placed in bed, composing himself for the purpose, and after a short period, if allowed to be perfectly quiet in a dark room, sinking into a refreshing sleep, the harbinger of recovery.

Instead of exhausting, the warm bath has appeared to soothe and revive the flagging energies of the system. The pulse is at first increased in frequency, but also in distinctness; the gradually

improved force and diminished frequency of the arterial pulsation, while the patient continues in the water, showing its good effect. The beneficial results we have derived from this remedy, when the failure of our efforts to dissipate Delirium, and induce sleep by quieting the nervous and vascular disturbance of our fast failing patient had caused us anxiety, have strongly impressed upon our mind its value as an adjuvant mean for allaying nervous irritation. But a few days since one of the intelligent resident medical gentlemen of the house, assured us that he had never been more agreeably surprised than by the beneficial effects of the warm bath, in cases when disheartened by failure, he had begun to despair of his flagging patients. Instead of wasting the small remains of constitutional power, as he dreaded, the effect was reviving and soothing. Every one of his fellow students have seen and acknowledged similar results. If the composing influence of the bath prove transient it should be repeated at the end of three or four hours, and a table-spoonful of the mixture of spirit and laudanum be administered as soon as the sufferer is placed in bed. If much prostrated, warm wine-whey, or a draught of brandy-toddy, may also be allowed.

We were led to adopt the plan of allowing frequently repeated small portions of the accustomed stimulus, combined with opiates, from having seen two or three instances under the charge of others, where the patients were found moribund, instead of convalescent, as their medical attendants confidently anticipated from a sleep—regarded as critical and the sure forerunner of recovery—having occurred, although late, under the use of the opiate alone;—the patients apparently sinking from the want of something to support them, worn out by the protracted absence of sleep, food, and their accustomed stimulus.

As patients under this disease seldom desire food, their favorite beverage is the only thing they seem to relish; and if deprived of it entirely they are apt to sink, particularly when the nervous system is no longer protected by the unnatural augmentation of its vital phenomena, resulting from the prolonged vascular erethism within the head. Early in our own experience an instance occurred, which impressed upon our mind the importance of allowing small quantities, repeated at proper intervals, of the accustomed stimulus, to patients habituated to its use for years, and goaded into a

condition of excessive vascular and nervous irritation by its recent use in large quantities, as both "food and drink."

The stomach in its weakness loathes solid food, and craves the stimulus to which it has long been accustomed, while it is incapable of responding with sufficient promptness to the stimulant properties of the unassisted opiate, given in such quantities as can be endured by the nearly powerless nervous system.

In a moral point of view, we acknowledge the importance of impressing the deluded victim of drunkenness with the conviction, that no real benefit can ever be derived from his favorite drink; but as the preservation of the patient's life, should be the first object with the practitioner, and as the exclusion of the accustomed stimulus in the treatment of cases of Delirium Tremens, has never within our knowledge, had any agency in producing a reformation in the habits of the patient, we perceive no sufficient objection to its introduction. We at first excluded it, but experience has taught us its necessity in a large proportion of such cases as are presented for treatment in infirmaries designed for the subjects of public charity. Its use may be dispensed with in many more instances during some seasons than others—arising from the modifying influence of a certain atmospheric constitution, frequently acknowledged in other forms of disease subjected to its impression.

As we learned from Dr. Wright's statement, that he had not found it necessary to use ardent spirits in the treatment of Delirium Tremens, and that he had yet been singularly successful, we excluded them in the earliest cases under our direction, but were soon taught to acknowledge their necessity in the great majority of cases occurring in the Alms House Infirmary. We may have used the accustomed stimulus in some instances in which success would have crowned our efforts had it been dispensed with, but seeing the instinctive greediness with which the poor patient would take it, and convinced of its safety, we have, of late, seldom treated a case without administering ardent spirits at some stage of it. If they are to be proscribed on the ground of morality, we must also banish opium, the habitual use of which, in extraordinary quantities, is every day becoming more and more common in this country, particularly amongst females who lead irregular lives.

There are many other stimulants that may be used, as camphor,

ammonia, capsicum, tinct. fœtid, &c. Yet no one acts like that to which the patient has been accustomed, and in his delirium he will sometimes refuse to take any other. But, as his taste is blunted, he may now and then be deceived.

In addition, we need not urge the evident advantages, if not positive necessity of darkness and quietude, together with a pure atmosphere, a comfortable bed, and sufficient covering when it is damp and cold. These, together with an experienced, capable nurse, are as important as any mere medicinal means to induce tranquillity. This is particularly impressed upon all who have conducted the treatment amidst the inconveniences inseparable from a public institution—in a community where no distinct provision is made for that peculiarly unfortunate class of paupers, the insane.* The patient disposed to tranquillity, is, perhaps, ever and anon aroused by the noise and tumult of a maniac within hearing.

It is no less important that he should be restrained from that ceaseless, unremitted, but exhausting muscular effort to which he is impelled by mental delusions, connected with a state of brain, rendering both mind and body "the sport of its power, seeming to impart superhuman ability to endure the unnatural privation of rest or relaxation." (Wright. Amer. Jour. of Med. Sciences, 1830.)

To economize the resources of our patient's system, by quelling such unnatural muscular action is most desirable, but this seldom can be accomplished by the use of the "leg chain," the "leather mufflers," the "strait waistcoat," or the "bed straps." By such personal hindrances we may prevent the patient from injuring himself, but we can scarcely gain any other advantage, for the mental condition which impels the poor patient to unintermitted muscular effort, continues, and banishes composure. The indignity of the restraint presents a new motive of action, while its discomfort never permits his attention to be distracted from it, and for hours he will work to free himself from his chain, or writhe in enforced recumbency under the bed straps, until stimulated by fright or fired by indignation, he collects all the energies of his sinking frame, and breaks the strong fastenings of his chain, or bursts his leather bands, springing to obey the dictates of his frenzy—more discomposed than ever. We have frequently found it soothing to remove all personal incumbrances; by doing so, in some instances, the

* See Appendix.

patient has been induced to compose himself in bed with a satisfied manner, indicative of gratified feelings, gradually sinking into a refreshing sleep.

But in the great majority of instances, some decided personal control cannot be dispensed with, in order to prevent the patient while fleeing in his alarm from some imaginary danger, from leaping out of a window, or otherwise injuring himself. The only mode of personal restraint at all calculated to promote the great object of the medical treatment and induce the patient to cease exertion, is such as can be exercised by a firm, judicious, kind, but watchful attendant, who is regarded by the invalid as a protector and friend, and under whose persuasion he may often be induced to lie quiet, and disregard the ever recurring and ever varying phantoms of imagination, until at last the full effects of the anodynes become developed, and the excited mind, sinks into repose.

We recollect one case in which the phantomic delirium had persisted, in spite of the bold use of anodynes, and every remedial means suggested by the condition of the patient, until the vital powers seemed fast ebbing, and we almost despaired of success, when the resident medical gentleman, having immediate charge of the patient seated himself, in the stillness of the closing evening, at the bed side, and without uttering a word, gently pressed his exhausted patient back upon the pillow, as often as he started up, under the influence of his morbidly active imagination. This interruption to his movements not being recognized by the sinking patient, did not irritate him, but gradually ceasing the fruitless effort to rise, he soon fell into a profound sleep of several hours, from which he awoke, refreshed and composed.

Another instance presented in a vigorous, athletic man of thirty-eight years of age, whose condition gave strong evidences of increased vascular activity in the brain. He successfully opposed all efforts to cup him, and became more and more violent under the bold opiates administered. Finally, refusing to swallow any medicine, and appearing provoked by the leg chain it had been necessary to use,—several times tearing its staple from the floor,—while his delirium increased in violence, he was persuaded by the entreaties of the same gentleman, who being wrapped in his long morning gown was mistaken by the delirious man for his wife, to rest his head upon his bosom and compose himself. He

soon grew tranquil, and continued in this position for three hours, ever and anon muttering his surprise at such "unwonted kindness," and wondering "what could have wrought so sudden and so great a change in his wife's deportment towards him." Under the agreeable influence of this kindness the patient was gradually losing his consciousness in sleep, when a noisy lunatic in the next cell startled him, and the doctor found it impracticable to persuade him again to resume his position.* His vigilance and delirium continuing the next day, he was directed to have— ℞ Pulv. Opii, grs. iv. Tart. Antim. i gr. repeated every two hours; and slept composedly after the third dose.

As so much depends upon the comfort and personal management of a patient, an attentive experienced nurse is an invaluable acquisition in conducting severe cases of Delirium Tremens. A case at first mild may unexpectedly become of the gravest form; a change which it is necessary should be at once recognized and mentioned by the nurse, or at the next regular visit the physician may find his patient beyond recovery.

During covalescence the diet should be light and nourishing, and the opiates continued in diminishing doses, until the integrity of the nervous system be re-established.

TABLE I.

Showing the number of cases of Delirium Tremens and Temulentia, with the number of Medical and Surgical cases, admitted in the Baltimore Alms House Hospital from May 1st, 1832, to April 30th, 1839, inclusive.

Date.	No. of Medical and Surgical cases admitted.	Cases of Delirium Tremens.	Cured.....	Died.....	Remaining.....	Cases of Temulentia.	Cured.....	Died.....	Remaining....
For the year ending May 1, 1833,.....	1810	29	26	2	1				
Do. do. 1834,.....	1960	57	51	6		65	65		
Do. do. 1835,.....	2571	67	55	12		109	109		
Do. do. 1836,.....	1968	30	23	7		120	115	4	1
Do. do. 1837,.....	1491	22	13	9		68	68		
Do. do. 1838,.....	1223	28	24	4		60	60		
Do. do. 1839,.....	1545	27	25	1	1	128	128		
Total,..	12568	260	217	41	2	550	545	4	1

* See Appendix.

From the preceding Table it appears that the proportion of those suffering from the immediate effects of the abuse of ardent spirits is about one fifteenth of the number (12,568) admitted, in the period of seven years from 1st May, 1832, to 30th April, 1839, inclusive.

TABLE II.

Showing the number of cases of Delirium Tremens and Temulentia, with the number of Medical and Surgical cases admitted in the Baltimore Alms House Hospital from May 1st, 1839, to December 31st, inclusive.

Date.	No. of Medical and Surgical cases admitted.	Cases of Delirium Tremens.	Males.....	Females.....	Cured.....	Died.....	Average ages of Males.	Average ages of Females.	Remaining.....	No. of Cases of Temulentia	Males.....	Females.....	Cured.....	Died.....	Remaining.....
May, ...		5	3	2	5		40	32		20	9	11	20		
June, ...		9	6	3	9		34	28		19	15	4	19		
July,.....		5	4	1	4	1	30	25		18	10	8	18		
August,.....		4	4		4		36			14	9	5	14		
September,.....		7	5	2	7		36	31		17	8	9	17		
October,.....		4	3	1	4		37	27		15	13	2	15		
November,.....		6	5	1	6		32	35		10	3	7	10		
December,.....		4	2	2	1	1	63	43	2	14	10	4	14		
Total,..	1264	44	32	12	40	2	38	31	2	127	77	50	127		

N.B. The oldest male referred to in the above table was J. M*****, æt. 86.
The youngest do. do. Aaron Simms, a negro, 19.
The oldest female do. ——— ———, æt. 46.
The youngest do. do. ——— ———, æt. 23.

The above table shows the proportion of those suffering from the *immediate* effects of the abuse of ardent spirits to be about one seventh of the whole number admitted during eight months of the year 1839.

The occupations of the males were as follows: 24 common laborers; 1 seaman; 1 bricklayer; 1 stonemason; 1 butcher; 1 printer; 1 merchant; 1 painter; 1 shoemaker. Among them were 15 Americans; 8 Irishmen; 2 Germans; 1 Englishman; 1 Frenchman, and 4 colored men.

The females were generally women of ill fame; 5 of them were Americans; 4 Irishwomen; 1 Englishwoman; 2 colored women.

TABLE III.

Showing the number of cases of Delirium Tremens and Temulentia, with the number of Medical and Surgical cases admitted in the Baltimore Alms House Hospital from January 1st, to November 1st, 1840.

Date.	No. of Medical and Surgical cases admitted.	Cases of Delirium Tremens.	Males.....	Females.....	Cured.....	Died.....	Average ages of Males.	Average ages of Females.	Remaining.....	Cases of Temulentia.	Males.....	Females.....	Cured.....	Died.....	Remaining.....
January,.....	118	6	5	1	6		55	29		8	4	4	8		
February,.....	69	3	2	1	3		43	29		4		4	4		
March,.....	87	5	3	2	5		53	37		7	3	4	7		
April,.....	82	5	4	1	4	1	38	44		11	7	4	11		
May,.....	110	8	1	7	8		19	32		15	6	9	15		
June,.....	89	5	5		4	1	39			14	7	7	14		
July,.....	96	11	4	7	9	2	40	30		3	2	1	3		
August,.....	128	1	1		1		39			7	4	3	7		
September,.....	114									24	11	13	24		
October,.....	119	6	6		6		39			8	7	1	8		
Total,..	1012	50	31	19	46	4	40	33		101	51	50	101		

N.B. The oldest male referred to in the above Table was 68 years of age.

The youngest	do.	do.	19	do.
The oldest female	do.	do.	45	do.
The youngest do.	do.	do.	18	do.

The above Table shows the proportion of those suffering under the immediate effects of the abuse of ardent spirits to be less than one seventh of the whole number admitted into the wards during the first ten months of the year 1840.

Among the males were 18 common laborers; 2 blacksmiths; 4 shoemakers; 2 seamen; 1 painter; 1 brewer; 1 farmer; 1 carpenter; 1 stonemason; 1 combmaker. 17 of them were Americans; 4 Germans; 8 Irishmen; 1 Scotchman; 1 negro.

Of the females, (almost uniformly women of ill fame,) 13 were Americans; 2 Irish; 2 English; 1 Scotch; 1 negro.

It may be proper to state that two of the four instances reported above as fatal, were in the last stages of the disease when received into the Hospital; their exhausted condition affording us little hope of success. They died in about thirty-six hours subsequent to their admission.

The two remaining cases occurred in men of twenty-five and twenty-six years of age, respectively; their frames bloated, and their constitutions exhausted by protracted habits of excessive stimulation.

One of them, E. T****, 26 years of age, a coach painter, entered

on the 16th June, laboring under the highest grade of temulent agitation, complicated with epileptic convulsions, and an acute gastritis. Although the latter was alleviated by the treatment adopted, it continued unsubdued, until the afternoon of the 18th, when a violent convulsion was succeeded by a fatal stupefaction, soon terminating in death.

The closing scene of this young man's life was a distressing comment upon his previous career. After his state of mental and physical suffering had yielded to the succeeding torpor, and a low, muttering delirium, his frequent allusions to persons and places, showed that he imagined himself to be still moving in his usual haunts of vice and sensuality. While the coarse jests, hoarse laughs and startling imprecations indulged, in deliriously addressing his boon companions by name,—the cold sweat of death then upon him,—sadly told how ill calculated his recent life had been to prepare him for its end. The uneffaced melancholy impressions of that scene, need not be denied by one who fruitlessly watched in the silent darkened chamber, for some evidence of the sinking patient's earnestly desired improvement.

Autopsy twelve hours after death.—The atmosphere cooled by a rain during the previous night.

The superficial vessels of the brain were much engorged; the arachnoid thickened; two ounces of blood effused about the base. The cut surfaces of both cerebral hemispheres appearing somewhat softened, and presenting numerous red points of vascular injection.

The thickened, mammillated, and in some parts, softened mucous membrane of the stomach and duodenum, presented evidences of recent high inflammation, while numerous patches of extravasated blood, mingled with tough mucus stained its surface.

Some portion of the lining membrane was much injected, the dendritic appearance of the anastomosing vessels being increased, by having their minute extremities fringed by small points of effused blood around their extremities. A chronic ulcer eight lines in diameter presented at the caput coli.

The other fatal case, Vincent Mullikin's, was complicated with inflammation of the brain, as displayed by the marked injection of its membranes and substance, as well as by the effusion beneath the arachnoid, at the base of the brain, and in the lateral ventricles.

Being unable to find our notes of the autopsy, we cannot give the appearances more in detail.

The limited data supplied by the preceding tables, may assist us in deciding upon the relative influence of age, sex, and season.

Some have decided, that Delirium Tremens occurs most frequently between the ages of thirty and fifty, while others limit the period of its greatest frequency between the ages of forty and fifty; but within our observation a large proportion of cases in both sexes have occurred, between the ages of thirty and forty. The average age of the males being thirty-eight, and of the females thirty-one, for 1839, and forty for the males, and thirty-three for the females in 1840. The oldest male being eighty-six, the youngest nineteen; the oldest female forty-six, the youngest eighteen. Are the sexes equally liable to attacks of Delirium Tremens? In one hundred and twenty-seven cases of Temulentia in 1839, fifty occurred in males, while only twelve out of forty cases of Delirium Tremens occurred in females. In fifty cases of Delirium Tremens reported for 1840, there were nineteen females, and thirty-one males, while in one hundred and one cases of Temulentia fifty occurred in females. In drawing any conclusions from these statements, it must be recollected, that the average proportion of women in the house from year to year is much larger than of men, as will be seen by Table IV.

Medical statistics arranged by physicians in the north of Europe show, that cases of Delirium Tremens in women are very rare in that part of the continent, but in England the sexes are pronounced to be equally liable to attacks of the disease.*

With regard to atmospheric influences, it appears that in 1836-7, in 1492 patients received, 22 were cases of Del. Tremens.

1837-8,	" 1223	do.	28	do.	do.
1839,	" 1264	do.	44	do.	do.
1840,	" 1012	do.	50	do.	do.

* "Dr. Rayer observed it in seven women out of one hundred and seventy-six cases. Bang states, that in four hundred and fifty-six cases which he treated, only ten were females. Dr. Höeg-Guldberg found but one case out of one hundred and seventy-three occurring in a female. Kruger-Hanson in sixteen cases, and the chief physician of the hospital Christiana in eleven cases, met with no instance in a female. These statements differ very much from the accounts given in England, for we find both Dr. Ryan and Dr. Roots state, that the sexes are equally obnoxious to its influence. This discrepancy can only be explained, by supposing that the indulging in intoxicating drinks amongst females, is carried to a greater extent in England, than in the north of Europe."

The month of May is generally stated to be the time when attacks are most frequent. By the foregoing tables, July 1840, afforded the largest number of cases, half as many being reported for the same month in 1839; and for June of the same year, nearly double as many are given, as for that month in 1840; while eight are stated to have occurred in May of the current year, and only five in May, 1839. In connection with this point, we may remark, in conclusion, that it is the habit of many of our male paupers to resort, at the allotted period to the neighbouring fisheries, where they are allowed to indulge in intoxicating drinks to great excess; at the conclusion of the season, in May or June, usually returning to the alms-house in the initiatory stage of an attack of Delirium Tremens. This circumstance should be considered in judging of the influence of season from the preceding tables.

TABLE IV.

Showing the average of Men and Women in the Alms House, from May, 1836.

Date.	WHITE.		COLORED.	
	Men....	Women.	Men....	Women.
For the year ending April 30, 1837,.....	1714	2144	412	738
Do. do. 1838,.....	1596	2194	411	764
Do. do. 1839,.....	1621	2072	412	785
For eight months, from May 1st, 1839, to December 31st, inclusive,.....	1159	1331	221	548
Total,..	6090	7741	1456	2835

No report has yet been prepared for 1840.

From this statement it appears that the average number of women in the house from year to year is much larger than of men; yet the number of cases of Delirium Tremens occurring in females in 1839, scarcely exceeds one-third of the number in men, while something more than one-half of the cases presented during the first ten months of the year 1840, occurred in females.

The Temulentia cases occurring within the same periods are equally divided between the males and females.

APPENDIX.

The gentlemen of the Board of Trustees of the Baltimore Alms House, anxious to ameliorate the condition of the lunatic inmates and convinced of the impracticability of instituting such a moral and physical treatment as is best calculated to restore them to health, unless in an asylum exclusively devoted to the Insane, have already called the attention of the city and county authorities to the necessity of some more appropriate disposition of them, and have directed a few additional apartments to be prepared for their present accommodation. We are pained to acknowledge the inevitable necessity we have sometimes experienced from the crowded condition of the cells and the large number of lunatics, of treating our Delirium Tremens patients in the immediate vicinity of, if not in the same apartment with, insane patients.

Seventy lunatics are now confined in this Alms House alone. Twenty white males; thirty white females; seven black males; thirteen black females, besides twelve idiots. A portion of these are foreigners; some are individuals from other states, and some from other counties of this state, who find their way, or are sent to Baltimore totally unprovided for, and consequently have no other asylum but the Alms House.

The whole number in the state of Maryland, including those confined at private houses, and such as continue immured in the county poor houses and jails, will soon be reported by the marshal. If the proportion to the entire population approximate that in other states, the new census will show a large class of indigent beings, afflicted with a malady now known to be curable in the proportion of ninety per cent. of recent cases, under an early and judiciously directed physical and moral treatment. Yet the sufferers, whose only crime is their poverty and disease, are treated as if unworthy of sympathy; forgotten in their prison houses, where they are allowed little beside "the poor privilege to breathe," chained like convicts or associated with vagrants, as was formerly the case in all parts of Europe, as well as in every portion of the United States, when under the errors of a false philosophy and the force of prejudice, insanity was viewed as an

infliction, the attempted removal of which was deemed idle if not presumptuous.

When will Maryland arouse to the necessity of following the benevolent example of most of her sister states, in providing some suitable asylum for her Insane Poor,—where they may enjoy those comforts and conveniences, those occupations and amusements, which are acknowledged to be indispensable to alleviate, if not to cure? In such an asylum how many would be restored to "mental existence" and usefulness, whose hallucinations are now aggravated,—the disordered functions of their brains goaded to excess, resulting in organic change and permanent fatuity, by being uncomfortably kept in crowded apartments, subjected, perhaps to some form of personal restraint to protect them from each other; deprived of the benefits of exercise, amusement and occupation; a condition as well calculated to induce insanity in a healthy individual, as to render it perpetual when once manifested.

Science and philosophy have triumphantly proved the curability of insanity if attended to early; and the people of Maryland cannot continue deaf to the claims of this most unfortunate class of her citizens, and refuse to aid their escape from the justly dreaded deprivations of permanent insanity, and consequent confinement in the comparatively comfortless apartments of Poor Houses, and the ill-ventilated, grated and cheerless cells of county jails, identified with felons and vagrants.

Will Maryland allow herself to be longer,—now almost half a century,—behind France, Italy and England; indeed nearly all Europe, and many years behind Maine, Massachusetts, N. Hampshire, Vermont, Connecticut, New York, Virginia, South Carolina, Tennessee, Kentucky and Ohio, in the good work of providing for her pauper lunatics? Will she still allow them to remain shut up, two, three, four or more together, without even the poor consolation of being alone in their misery?

The destitute condition of the insane poor of our state is, in truth, a dark blot upon her otherwise fair escutcheon, which, we trust, will soon be removed. Instructed by the experience of her sister states, that on the score of economy it is her interest, we hope she will follow the clear dictates of policy, if not of pity, and no longer refuse to make proper provision for this class of her citizens.

Bountifully providing for the destitute widow, orphan and invalid, for the mute and the blind, can she permit her soil to continue one of the few spots where the poor lunatic is forgotten amidst her public charities, and left destitute of the comforts of existence, and every means of mental tranquillity! We hope not. But regarding the very partial provision made two years since in 1837-8, by the appropriation of $30,000 to the Maryland Hospital* as an earnest of her future disposition and efficient action, we fervently pray that at an early day an asylum and a home may be given by the state to every destitute subject of mental disease within her limits.

An eloquent appeal has again been made in behalf of the insane poor of our sister state, Pennsylvania, which we doubt not will prove effective, so well is it calculated to re-enlist the active sympathies of her enlightened philanthropists in behalf of those

* On the 3d of April, 1838, a resolution, offered by Dr. STEPHEN COLLINS, a Delegate from Baltimore city, passed the Legislature of Maryland, in favor of the Maryland Hospital, by which $30,000 were appropriated for its completion,—distinct reference being had in making the improvements, to its exclusive use as a *Lunatic Asylum.* This resolution contains the following clauses: "*Provided,* that one half of said institution shall hereafter be appropriated to the accommodation of pauper lunatics of this state, who shall there be accommodated and treated at the expense of the county so sending such lunatic paupers; provided the same shall not exceed one hundred dollars for each pauper lunatic so sent."

This appropriation has proved totally insufficient to supply the necessities of the pauper lunatics of the state. Their number is estimated at not less than two hundred and fifty. The sum of one hundred dollars, to be paid by the counties to the Hospital, is too small to bear expenses. It has been stated by Dr. STEUART, President of the Maryland Hospital Board,—a statement corroborated by the reports of the most economically conducted institutions at the north,—that the food, nurse-hire, medical attendance and medicines of each patient costs one hundred dollars; and that clothing and fuel would cost twenty-five dollars additional. This loss the institution bears out of the small profits derived from the private patients.

It seems, however, that the counties very seldom avail themselves of this provision, preferring to continue their unfortunate lunatics in their poor houses or jails, at an expense calculated not to exceed fifty dollars, with scarcely a chance afforded of recovery,—rather than incur the additional expense imposed by placing them at a hospital appropriated to the Insane; where alone, if not restored to health, their condition may be so improved by a judicious course of moral government, seconded by cheerful exercise and healthful occupation, as to render them once more comparatively contented and useful. By this ill-judged economy, insanity is aggravated, and the sufferers continue during life, totally helpless and dependent. Whilst had their home been at a lunatic asylum, their moral, mental and physical capacities would be so directed as to be conducive to their individual support, simultaneously with the improvement of their health and condition.

who are no longer regarded, and should be no longer treated as outcasts. Her chief magistrate, as her organ, in withholding his sanction, (the necessity of which he deplored, but thought imperious, from the exhausted condition of the treasury) from a bill making provision for the numerous Insane Poor of that extensive commonwealth, which was passed by the Legislature two years ago, has avowed it to be her religious duty to provide, at her earliest ability, for the removal of so manifest an evil from amidst her people. And it being now shown to be her interest on the score of economy* alone, Pennsylvania, we are sure, will not neglect this "Second Appeal." And for the sake of the character of our native state we hope that Maryland will not be behind her in the benevolent undertaking and christian duty. To induce union and efficient action in order to effect so necessary and desirable an object, we earnestly appeal to the state and city authorities, as well as to every philanthropist, and every Marylander. For who, in this enlightened period, so characterized by wisely bestowed and extended charities, will acknowledge himself without sympathy for, and consent longer to forget the Insane Poor.

"Who that bears
A human bosom hath not often felt
How dear are all those ties which bind our race
In gentleness together, and how sweet
Their force, let Fortune's wayward hand the while,
Be kind or cruel."

* See a second appeal to the people of Pennsylvania, on the subject of an asylum for the Insane Poor of the commonwealth. Philadelphia, 1840. [Reported by a sub-committee, through their chairman, Dr. DUNGLISON.]

REVIEWS.

Medical and Physiological Commentaries. By MARTYN PAINE, M.D. A.M. *New York*, 1840. 8vo. pp. 716—815.

IN the present day, when medicine is every where cultivated with a zeal hitherto unexampled; when means of research are afforded in numerous hospitals, where disease may be seen in all its phases; when most of our medical schools have clinical hospitals attached to them, and doctrines advanced in the lecture room, in order to convince, must be borne out by symptoms, and the effect of remedies during life, or the palpable results of the dissecting room; when the march of the sister sciences is daily throwing new light on the path of the medical inquirer,—hopes were entertained by many, that a new era was about to dawn, and that medicine, relieved from the imputation of its uncertainty and obscurity, might boldly claim for itself a rank among the exact sciences. The reign of theory we boasted had passed away; no talents, however brilliant, no authority, however high, no ingenuity, however specious, could we thought, again invest any exclusive doctrine with charms to withstand the rigorous scrutiny which it was likely to meet with on all sides. A return to the close observation of unchangeable nature and rigid induction from facts thus observed, was every where proclaimed as the only legitimate way of arriving at truth. Such was the course pursued by HIPPOCRATES; and a high and increasing appreciation of the works of the sage of Cos, recalled the medical world to the only true plan of benefitting their science. HIPPOCRATES, GALEN, ARETÆUS, CELSUS, were indeed giants, but to use a figure of Lord BACON, "though in

comparison with them we be but pigmies, still, mounted on their shoulders, we should see farther than they." We have the advantage of their works, and the works of thousands since their day; we have the accumulated facts of ages; we have greater facilities for observing in our numerous public receptacles of disease; we have the lights of anatomy, and physiology, and pathological anatomy to assist us; we have our rules of philosophizing systematized and acknowledged; and we saw such advances made in all other sciences, that we had reason to believe our own was marching with equal front.

The soundest minds and greatest names in medicine for the last thirty years have all professed a judicious eclecticism. Truth was supposed not to lie in any exclusive system, as no one could combine and explain satisfactorily all the various facts. But a close observation of the phenomena and results of morbid action; the success with which physical means of exploration have been cultivated; the application of chemical analysis to the blood, urine, &c. in their normal and abnormal states; a guarded recognition of the mechanical and physical character of certain phenomena; and above all, the certainty impressed upon diagnosis, by the ascertained uniformity of anatomical lesions, in certain diseases, and the constant co-existence of certain vital signs and symptoms with these morbid changes led to the acknowledgment of the mixed character of many of the operations of the body in health and in disease. While all admitted to a greater or less extent the presence of some wonderful vital principle, presiding over, regulating and modifying the various processes of the body,—chemistry and physics were brought in to account for other phenomena, which evidently fell within the province of their laws. Exclusive solidism, and exclusive humoralism were alike found insufficient to explain every fact: both were therefore admitted to share in the interpretation. With the great book of nature open before us, freed from the blinding prestige of theory and great authorities, observation and induction were deemed sufficient to elicit, and establish truth.

Numerous indefatigable and talented laborers in every country, have enthusiastically been pursuing this road to fame. More talent, greater industry, or brighter names have never graced the annals of our science. In so vast a field of inquiry, most have marked

out specialities for themselves, and we possess admirable monographs upon almost every subject of medical inquiry. What is now a desideratum is that some master-mind should so combine and arrange the vast collection of accumulated matter, as to produce a lucid and satisfactory exposition of the principles of the science in its present stage of advancement. Such attempts have been made, but none at once sufficiently comprehensive and detailed to satisfy the wants of the profession. It is easy enough in taking a general survey of the field to make such a display of general principles as may be both interesting, and to a certain point, useful. But together with a general view, to combine such practical details as may make the work of real value to the student and practical man, is becoming every day more difficult. In describing our domain it is not the work of the traveller that we want, who, though he may be an enlightened man, contents himself with pointing out the general features of the country; but that of the philosopher, who, in addition to its more striking peculiarities, enters into a strict detail of its climate, soil, productions, resources, government, social and political habits; gives us the statistical facts connected with all these, and from a profound study and comparison of their mutual relations and bearings, shows the errors of the past, the attainments of the present, and its anticipations for the future.

The Medical and Physiological Commentaries of Dr. PAINE have been long announced as in preparation, and were looked for with no little anxiety by his friends and the profession. No species of literature, perhaps, is so prolific in America, as the medical press, and in no other science will we bear so fair a comparison with the literati of the old world. Our facilities for research are equal to theirs, and on equal ground there is no reason why we should not compete with them. But we fear this work will not advance the character of the profession in America for medical philosophy. It is a voluminous treatise on the principles of medicine, which, instead of taking the ground we have above described, boldly affirms that our hopes and anticipations of improving our science are vain chimeras; that we are pursuing the wrong road; that all the lights we are borrowing from chemistry, physics, physiology and pathological anatomy, are so many ignes-fatui, leading us into error. He would force the science to march backwards

some two thousand years, would break our scalpels, test glasses and microscopes; shut up our anatomical and physiological amphitheatres, burn our libraries, and giving us the works of HIPPOCRATES and GALEN, would persuade us that we have nothing else to learn. The author is evidently a scholar; quotations from writers in every age and language abound in the text and foot notes, but in general the more ancient they are, the more the reverence with which they are treated. We have read of JOHN TAYLOR, who, in translating the works of Plato, became by his exclusive attention and interest in them, so perfectly persuaded of their truth, that after offering sacrifices to the gods, he left his written testimony to posterity, that there was one man in the eighteenth century who had returned to the sublime belief of the ancients. Much such a process seems to have taken place in our author's mind. SYDENHAM, HUNTER, BICHAT, RUSH, and a few others, are indeed mentioned with due respect, and held up to our worship as the *Dii minorum gentium*, but still as less worthy of belief than HIPPOCRATES and GALEN. Whilst HALL, BRIGHT, STOKES, GRAVES, ANDRAL, CHOMEL, LOUIS, &c. are attacked and proscribed as the apostles of error.

"Nor do we think that our treatment of disease has been much improved within the last fifty years amongst the educated part of the profession. We gather this conclusion from our medical literature, which shows that our predecessors were close observers of nature, and founded their principles and practice upon her phenomena. Those principles and that practice have been remarkably without change. The pioneers of the new world, even her clergymen, studied the ancient medical authors, HIPPOCRATES, GALEN, ARETÆUS, CELSUS, &c. as among the accomplishments of a finished scholar. New England, therefore, at its earliest settlement was provided with some able and well educated physicians; and though not favored with the great facilities of the present day, our fathers were not less learned in the science of their time, than we in ours." Vol. 2, p. 266.

And: "The more extended introduction of morbid anatomy as an element of medical science, has properly given rise to histories of disease, which the morbid results were designed to illustrate. But whilst we would cherish this branch of the science under strict limitations we are prepared to show that medicine has lost

by its modern cultivation. Illustrious exceptions there are, which greatly restrain this general induction, and which hold up our science as it was once sustained on the barrens of Arabia." Vol. 1, p. 299.

It is, in fact, principally against the cultivation of morbid anatomy, the torch, and in some measure the eye of medicine, as FREDERIC HOFFMAN terms it, that our author's ire is directed. Not content with devoting an entire essay to decrying the value of its additions to medicine, the whole book is a running commentary upon this text; and he unhesitatingly asserts that with its cultivation there has been a proportional decrease of judicious practice, and predicts for its triumphs a speedy oblivion. He concludes his essay upon this subject in the following strain:

"We shall not farther speak of the luminous cultivation of the Hippocratic philosophy by ARETÆUS, CELSUS, and other eminent ancients, nor repeat the proof of its consistent results and of its practical influences in medicine; nor will we dwell upon its decline as the source of that ignorance and superstition which covered the earth for so many ages. Deride the past as we may, vaunt of the genius and discoveries of the present age as we will, (we speak only of medical science,) believe as we may that 'medicine is now in its infancy,' we cannot resist the overwhelming reaction that is about to come. Those men once so illustrious, but whose opinions and habits we are now affecting to despise, are about to step forth upon the theatre of life with a more mighty tread than ever. They are coming forth to decide the great contest which is now going on betwixt their co-operators in observing and interpreting nature, and those who are employed in seeking for nature in the midst of her ruins. At the head of this mighty band you will see the great father of the healing art. On all sides you shall meet the stirring spirits of ARETÆUS, ÆTIUS, CELSUS, GALEN, AURELIAN, TRALLIAN, ÆGINETA, marshalling the great multitude that worshipped in nature's temple, and who with them are rushing forward to the rescue. So vigorous the onset you may almost hear the clashing of the gigantic minds.

'Tis the past
Contending with the present, and in turn
Each has the mastery.

Is it not a glorious spectacle? will you not fall down with us and do it homage? The trial must be decided by that great test of principles in medicine, their practical application to the uses of man. You see them all executing with decision what the living voice of nature had prompted. They were unacquainted with her mysteries when they were only uttered in her expiring groans. On the other side you hear nothing but of nature in her last agonies, and therefore of nothing but despair, and the imbecilities of art." Vol. 2, p. 676.

But to speak more particularly of the general character and scope of the work. It is made up of a series of essays upon some of the most important subjects in medicine. The style is unnecessarily diffuse, for the same idea or proposition occurs again and again in each succeeding essay, embellished in a new dress, and with new illustrations. As we have already said, the author displays a great deal of research and polished scholarship. Nearly one-third of the work is made up of quotations not only from medical but from the range of general literature. The prevailing tone of the book is of a controversial character; indeed it could hardly be otherwise, seeing the heterodox nature of most of the positions which the author assumes in relation to the general belief and spirit of the profession. Opinions are quoted from all kinds of writers, and set up as targets, against which he may discharge the arrows of his wit or reason, without at all times selecting such as were really proper objects for the display of his skill; for it is upon the most ultra, and consequently the weakest of these that most pains and eloquence are thrown away. In order, however, to present his own views, which he felt must startle by their exclusiveness, it was necessary to attempt to weaken the foundation of most of our established views, and thus *par voie d'exclusion* make way for his own. Like Broussais in his *examen*, he had a wide field before him; but the talents and skill of the two men differ even more than the materials each had to attack, and the results likely to follow. A great deal of ingenuity and considerable skill in argument are every where displayed, so as to excite regret that eminent talents should have taken so wrong a direction. While reading, the thought continually suggests itself, that our author had acted upon that sentiment of Rhases, which he quotes with so much approbation: "That he would prefer a well read physician who

had never seen a patient, to one who should be ignorant of what has been said and written by the ancients." The commentaries smell more of oil than they do of the sick chamber; and the stench of the dissecting room, it is evident has been carefully shunned. This polemic character becomes tiresome in the end, though necessary, perhaps, to the author's plan; we grow fatigued with meeting opinion after opinion set up merely to be bowled down by the commentator.

The first essay is devoted to a consideration of the vital powers, the importance of which Dr. PAINE says, and perhaps with reason, is too apt to be overlooked by the majority of medical men; with these alone and their modifications in disease, is the physician interested, and all his remedies should be directed to restoring their equilibrium. An exclusive vitalist, he attacks in this essay the opinions of those who maintain that to a certain extent, many of the processes of the body, are in accordance with the laws of physics or mechanics, or any thing approximating to, or analogous with those laws. With regard to the nature of these powers, he says—

"We can see no objection, therefore, but much reason for considering the essence of the vital force distinct from matter—something analogous to the soul itself; or rather in conformity with the analogies of nature, as well as with the phenomena of life,—something intermediate betwixt spirit and matter, or in animals, the principle of instinct and matter, which forms a connecting link. Material causes can as well operate upon such a principle; for come we must to the latter conclusion before we can reach the soul." Vol. 1, p. 84.

A conclusion which however satisfactory to the author himself, we confess, after all he says about it, leaves us in as uncomfortable a state of uncertainty as to its true nature and operation, as we were in before reading the essay; and not at all more enlightened as to the kind of remedies we are to apply to restore this immaterial principle to regular action when it becomes disordered. In the next essay, on blood-letting, Dr. PAINE kindly relieves us. As his views on this subject are in many respects original, and of more practical value than any others in the work, we will give a brief abstract of his modus operandi of blood-letting, both general and local, using, as far as practicable, his own language.

Dr. Paine thinks that the effects of blood-letting are scarcely at all owing to the diminution of the general mass of blood, but that it acts purely in virtue of the direct influence of the remedy upon the vital forces, and that this impression in modifying the action is equivalent to a removal of *the unknown cause*, always excepting mechanical irritants. The author does not spare the humoral pathologists, nor those who explain the effects of blood-letting, on the doctrines of derivation, revulsion, physics, or hydraulics. He considers that the vital forces are modified by blood-letting, more or less deeply, in proportion as syncope is produced, and that bleeding is seldom useful, unless this effect be distinctly obtained. The earliest effect of blood-letting consists in a contraction of the blood vessels. In leeching, this contraction begins in the extreme vessels of the part, which soon involves by sympathy those in the vicinity, and what is especially important, those that are the seat of disease, when they are applied on, or in the neighborhood of the inflamed part. This immediate contiguity, however, is not necessary, it may happen by sympathy when the affected part is remote from that to which the leeches are applied. By the same principle, the whole capillary series, which possesses in all parts an organization more or less alike, becomes involved in like manner throughout the system. The larger vessels sooner or later participate in this contraction, and by reacting sympathy, increase the artificial affection of the extreme vessels. But such is the sympathetic relation between the extreme vessels and the heart, that in many susceptible constitutions, or from peculiar conditions generated by disease, the impression produced by leeching on the *vires vitæ* of the extreme vessels may be propagated directly to the heart, as well as through the more direct chain of sympathy, of which we have just spoken. This effect is produced upon the large vessels and the heart, by the laws of continuous and remote sympathy.

In general blood-letting, the first impression is simultaneously on the large and small vessels. A contraction takes place directly through the impression exerted upon the vital forces by the diminution of blood,—that of the smaller vessels increasing in a greater ratio from their greater sympathy with the larger, and their greater endowment with the vital powers. The amount and rapidity of this change, when clearly the result of the loss of blood, will

depend upon the suddenness with which the blood is abstracted. The next link is the beginning failure of the heart's action. This does not appear to arise from the mechanical diminution of the circulating mass, since the small vessels are scarcely affected by this cause, but by the impression made upon their *vires vitæ*. He thinks that the failure of the heart's action depends upon the accumulation of blood about the centre of circulation, in consequence of the general contraction of the capillary arteries and veins; and upon its sympathy in the change in the external and capillary vessels, together with some cerebral or sometimes gastric influence. The peculiarities of leeching are owing to some specific impression exerted by this remedy upon the forces of life, which no other mode of abstracting blood can exactly establish; and he thinks that his explanation of its *modus operandi* satisfactorily accounts why it affects the heart more permanently than general blood-letting,—by its greater impression than venesection upon the extreme vessels, which are the direct instruments of disease, it more immediately and permanently subverts the morbid actions, and thus sooner withdraws a cause that may powerfully stimulate the heart, and that contributes to maintain a greater resistance in the universal capillary system to the influence of general blood-letting. Hence the superiority of leeching over cupping (which more resembles venesection) in particular conditions of disease, since the former affects more deeply and permanently the morbid action. Leeching is therefore highly important in mild, though obstinate cases of purely local inflammations, before the constitution is brought under the influence of morbid action; or when the constitutional disturbance has been reduced by general blood-letting. This latter is requisite in certain states of the general circulation, when the action of the heart is either excited or prostrated, and the extreme vessels at large are involved in a morbid influence, although a certain part only may carry on the work of disease. Under these circumstances we must have recourse to general blood-letting, that we may obtain from it a sudden and universal impression upon the entire organs of the circulation. And again, in local venous congestions, and in congestive fevers, when the circulatory organs are prostrated, an abstraction of eight ounces of blood by venesection, may rouse the system far more effectually and immediately, than a greater quantity of blood by

leeching. Here the heart is oppressed, and we now rouse this organ more directly by general blood-letting.

Dr. Paine scouts at the doctrines of Marshall Hall and others, of the danger of diseases produced by excessive loss of blood, called diseases of irritation, or of excessive reaction from exhaustion, and thinks cautious leeching the best agent in that class of inflammations,—and *e converso* he has seen the capillaries so contracted, and the heart so prostrated from leeching, that he has been driven to the lancet to remove this mischief in certain cases, associating stimulants with venesection. He objects to the rule, "that if much blood be taken before incipient syncope, more will probably be demanded soon; or if, on the contrary, little blood have flowed, neither does the disease require, nor would the patient bear farther general depletion." "We," says he, "are apt indeed, if blood-letting be indicated at all, to reverse the proposition; and we think that we see that it is in this modern rule, that the bark and wine treatment of congestive fevers has had its origin. As to the assumption of any particular circumstance or symptom as a rule for blood-letting, or the application or neglect of any other active or remedial agent, he holds it to be indefensible. Neither the pulse, tongue, nor respiration can be depended upon, and the overwhelmed condition of the system in fevers and inflammations, when the patient faints after the loss of a few ounces, is the most pressing circumstance requiring a repetition of the remedy."

Dr. Paine believes in the inflammatory nature of all diseases; and rejecting entirely the agency of an alteration of the fluids, in originating or perpetuating disease,—he avows exclusive solidism, forgetting that wise saying of his admired Bichat, "*que toute théorie exclusive de solidisme ou d'humorisme est un contre-sens pathologique, comme une théorie dans laquelle on mettrait uniquement en jeu les solides, ou les fluides, en serait un physiologique.*"

Blood-letting throughout the book is the *remedium magnum* in every case to alter the *vires vitæ* of diseased parts, and with the exception of cathartics and calomel, which are once or twice mentioned with approbation, seems to be the only means of relief placed in our hands. The heroic is the only plan of treatment he approves of, and he constantly speaks of violent fevers and inflammations strangled by a single bleeding. Of course the views of our author are in direct conflict with those of a large class of phy-

sicians of the present day who regard all diseases as having a certain course to run, who look upon the medical man as the interpreter and adjuvant of nature, not her master, and whose treatment should be directed with a view of alleviating and modifying symptoms, and lessening the violence and duration of diseased action,—believing with HIPPOCRATES in the existence of the *vis medicatrix naturæ*, and conceding that his remarks upon this subject, upon critical days, and the signs of prognosis, are worthy now as they have been in all ages, of the admiration of true observers. BOTAL, BOUILLAUD, and all the ardent advocates of the lancet are mild in their measures compared with Dr. PAINE. The worthy SANGRADO himself was not more daring or exclusive. "Many of our patients," says he, "perish alone from the reason that the system has not the power to bear the loss of blood that would otherwise overcome the disease." And—

"Does not the whole class of congestive diseases testify as to the inefficient use of this remedy? How constantly is it neglected in inflammations of the serous and mucous tissues of the alimentary canal, in pneumonia, in erysipelas, angina, scarlatina, measles, &c? Is not a neglect of it consigning to the grave incalculable numbers affected with what are called malignant, or putrid, or adynamic fevers? And when is it adopted in excess? In cases of irritation,—affections of such comparatively rare occurrence, that, according to Dr. HALL, the profession appear to be totally unacquainted with them. We are, therefore, more inclined to the opinion of BOTALLI, that one hundred thousand men perish from the want of blood-letting, or from its not being timely employed, where one perishes from excessive bleeding, when prescribed by a physician." Vol. 1, p. 270.

"But if after surveying the whole aspect of a case, we remain in doubt about the propriety of abstracting blood, we generally take out our lancet and bleed the patient. But even when we yield to the demand of the symptoms and avoid blood-letting, disease has been sometimes so latent, that, with all our decision with this remedy, we have lost patients from its delay or neglect. We have long since come to the conclusion that is was safer to put this 'two-edged sword' into the hands of the ignorant, or the imbecile, or those who make a trade of the profession, than to forever blunt its edges so that it will not cut, before it be trusted

to their use. We every where see victim after victim sacrificed to timid admonitions and worse example; whilst you and all of us know, that it is a rare phenomenon that a patient is slain, seldom injured, by the lancet." Vol. 1, p. 238.

We have occupied so much of our paper with this essay, that we cannot enter into so detailed an analysis of those which follow; they are all written in the same spirit, and serve but as so many vehicles for advocating exclusive solidism, vitalism, the universal agency of inflammation in all the processes of diseased action, the necessity of copious depletion,—and attacking humoralism, with all chemical or mechanical explanations of the operations of the body; and tirades against pathological anatomy and all inductions based upon it, the microscope and physiological investigations. The two longest and most labored are those upon humoral pathology and venous congestion. In a note to the former, he gives as an answer to some of ANDRAL's beautiful and lucid doctrines upon this subject, the following note by way of argument; of its fairness and strength the judicious reader will judge:

"It seems to us proper, that we should record here, in connexion with the foregoing subject, the opinions of this distinguished man, in relation to that singular delusion, animal magnetism. Science has a deep interest in ascertaining the mental constitution of those who may hold the sway in her dominions, and how far her lawgivers may be qualified by nature to expound her fundamental elements. M. ANDRAL, like many of his eminent associates in the walks of pathological anatomy, believes 'that a state of ecstacy can be produced by an influence exercised by one individual on another, and that imitation and imagination, are inadequate to explain these phenomena,' &c. Where the understanding is thus surrendered to the imagination, it is important to hold it, on all questions, in more jealous suspicion than where opinions emanate from sources that are incapable of propagating error." Vol. 2, p. 632.

The author's doctrine of venous congestion is eminently curious and original. The substance of this article, he informs us, was communicated to Dr. JAMES JOHNSON in 1837, and this statement he makes in order to show that no *coincident* opinions have been borrowed from others since that period. Dr. PAINE believing in

the universal agency of inflammation in the production of morbid action, makes it an inflammatory disorder, and puzzled where to find a location for the inflammatory action, fixes upon the *vasa vasorum* of the veins themselves.

"Venous congestion, as we shall endeavor to show, is constituted by inflammation of the coats of the veins. But if this mode of action exist, it is in a low state, and the instruments concerned, which are the *vasa vasorum*, are too limited in amount to exert those exciting influences upon the vascular system, which we have seen to attend some cases of sub-acute inflammation, as in anasarca." Vol. 1, p. 198.

And again: "In all other diseases we find that the extreme capillary vessels are the instruments of morbid action. Analogy would prompt us to look for some such principle in venous congestion. But as a morbid condition of the capillary veins would not alone explain the expansion of the larger series, where shall we be so likely to find the true seat of the difficulty as in the coats of the veins themselves? This principle, we shall ultimately see, will resolve the difficulty of accounting for the prostrated state of the heart and arteries, when it arises from congestion of a single organ, and will explain other remarkable phenomena, and the dangerous tendencies of this affection; which it appears to us in vain to interpret by any mechanical hypothesis." Vol. 2, p. 245.

We will not follow our author in his analogies and inductions from symptoms, treatment, causes, phlebitis, dilation and varix; but only say that one single recognized, and palpable evidence of the received appearances or results of inflammation, from post mortem inspection, even if made evident by the microscope, would have weighed more with us in these matter-of-fact days, than all the eloquent and ingenious arguments and inferences of our author. No wonder the lights afforded by pathological anatomy in the investigation of disease should be so ignominiously rejected when they conflict with this and other favorite hobbies.

The last essay is devoted to a critical examination of the works of P. CH. A. LOUIS. Had we time we would gladly go over this ground inch by inch with our commentator, but the length to which our notice already extends, precludes this; and we deny

ourselves the pleasure the more willingly, as a writer in the Boston Medical and Surgical Journal has ably vindicated the Hippocrates of our day from the unfair garbling and misstatements of Dr. Paine. M. Louis is too well known in this country, his writings and views are too generally spread, to fear anything from an attack like the present. The many laborious years he has spent in constantly "listening to and interrogating nature," like the Romulus Medicorum, have gained for him and his works a reputation as extensive as it is well founded. If what has been granted in all ages be true,—"that medicine is a science of observation, that indeed it consists entirely in proper observation;"—he, who has even by the admission of our author, observed more closely than any one else,—who "looking upon each particular case as a problem to be solved, and for the solution of which it was necessary to unite all possible materials,—interrogated every function during life, described every organ after death; and after having collected a mass of similar facts, analysed them with care, and drew rigorous conclusions;"—the facts and conclusions of such a man will long stand aloft, a tower of strength, impregnable alike to the paper bullets drawn from an arsenal of musty authors, or the light artillery of an imaginative and theoretical mind.

We here take our leave of Dr. Paine. We may perhaps have treated him more cavalierly than the imposing size of the work, and the reputation of the author demanded; but looking upon his doctrines as unsatisfactory and visionary, we did not think they merited a more formal or critical notice. We have read the book with considerable pleasure, for with all its errors it contains many excellent things, and perhaps may do good by recalling the minds of the profession to the existence and importance of the great laws of vitality, which, we agree with the author are in some danger of being overlooked by those whose attention is too exclusively devoted to the prevailing system of studying facts without reference to principles, though the obvious tendency of the work is to restore that much more deplorable state of things where principles are attempted to be established independently, and in spite of facts.

W. P.

BIBLIOGRAPHICAL NOTICES.

A Second Appeal to the People of Pennsylvania on the subject of an Asylum for the Insane Poor of the Commonwealth. Philadelphia: Printed for the Committee. pp. 35.

THIS is emphatically the age of benevolence. Mankind are no longer considered in masses—fit subjects only to carry out the selfish plans of the ambitious tyrant; but now they are individualized, and the wants and miseries of a few are sought out and brought before the public. There is a spirit which is going every where over the land taking the guage of human misery and suggesting means for its alleviation. Among the most prominent and praiseworthy of these objects is that which forms the subject of the present notice, viz: the condition of the insane poor.

The present work is of so interesting a character as could well justify a much more extended notice than our limits will allow. It appears that about two years since a meeting of the citizens of Philadelphia was held to take into consideration the propriety of adopting measures to establish at the public expense an asylum for the insane poor of Pennsylvania, a committee was appointed to carry out the design of the meeting. The committee (of which we believe Prof. ROBLEY DUNGLISON was the chairman,) in the discharge of their duty prepared an appeal to the people of Pennsylvania, and sent memorials to the Senate and House of Representatives, before which a bill was offered and passed, but did not receive the approbation of the Governor, who, while he gave his entire approval to the important object of the bill, still felt it to be his duty on account of the embarrassed state of the finances of the State, to veto the bill. In September last, another meeting of the committee of the citizens was held, who appointed a sub-committee consisting of Dr. DUNGLISON, ISAAC COLLINS, and Rev. C. R. DEMME, D.D. to prepare a second appeal to the citizens of Pennsylvania, which was presented by the chairman, Dr. DUNGLISON, and now forms the subject of our present notice. We shall make some extracts from the appeal and condense the important points contained in it.

It is estimated that there are two thousand insane in the State of Pennsylvania, and that the proportion who are destitute is at least twelve hundred; and that five hundred of these might come within the range of the contemplated asylum. The importance of removing the insane from familiar scenes is shown in the following extract:

"It is now admitted, every where, that the chances of restoration are slight indeed where the individual is kept constantly amongst the scenes and objects that gave rise to, or are connected with his delusion: but when, in addition to this, he is subjected to ill

treatment and to every form of privation, it is scarcely necessary to add, that recovery must be next to impossible. A well regulated hospital affords the only means of restoration, and where restoration is impracticable, of rendering the condition of the insane as comfortable as their melancholy infliction permits. No private establishment can possess adequate means for bestowing regular and appropriate attendance, and hence it frequently happens that with the most affectionate feeling on the part of relatives, the ordinary attendants neglect their duty, and at times with results that are most calamitous. In the former Appeal, allusion was made to the fatal consequences of inevitable neglect during the cold of a winter of unusual severity, in a case which was attempted to be treated at home, under the unfortunate impression, on the part of the respectable family, that the ordinary servants of the house would be able to attend to the sufferer, and that there was something revolting in sending a relative to a public institution where neglect was possible, and where he would be deprived of those tender cares, which relatives—it was erroneously conceived—are alone able to bestow.

"It is to be lamented that these feelings still prevail to too great an extent amongst both the rich and the poor; yet they are gradually fading before the lights of experience, and soon—it is to be hoped for the good of humanity—will vanish altogether. One of the earliest evidences of insanity is generally a dislike to those to whom the insane have been previously most attached, and whose sympathy or control they indignantly reject. These feelings continue as long as the aberration; and hence the importance of removing them at an early period, from these perverted associations to institutions in which they are taught from their first admission to brook control, and in which—at the same time—every attention is paid to dispel the morbid hallucination, and to minister to their happiness."

The requisites for correct and successful treatment are thus laid down, which we extract in full as they apply in a forcible manner to other states, particularly Maryland, where we wish to direct public attention to the subject.

"It is requisite that the building accommodations should have been erected for the express purpose, in order that due classification may be adopted; and that ample facilities should exist for employment in labor, or amusement, that may exercise the mind, and abstract it from its delusion. Except, indeed, at an early period of the disease, physical management is generally of but little avail. Admitting that insanity may be essentially physical in its nature, it is not an affection, which, after it has continued for some time, is capable of being generally cured by remedies, that are employed for the removal of ordinary corporeal excitement; and hence the main stay of the physician is in the adaptation of a proper moral management, for which the best of our county almshouses, affords us but imperfect facilities; and the rest few, if any. It is indeed deplorable to peruse the statements made on authority, and contained in the Report to the Legislature of Pennsylvania, to which reference has already been made.

"'We have two places only'—says one of the county reports—'for the reception of the insane poor,—the common poor house and the county jail. In the latter places are generally males, who are too violent and dangerous to be kept in a common poor house. For the public peace and protection of the community, they were charged with breaches of the peace, or petty misdemeanors that were made the pretence for confinement, and being unable to give bonds were committed. Here their society is chiefly convicts, or if kept in solitary confinement, so ill are the accommodations for this, that they suffer more than the rigor of penitentiary discipline, and thus are they kept from year to year, with the same treatment that is meted out to those convicted of high crimes. In one instance, a man who had been a minister of the gospel, being without the means of removal, or support in a private asylum, was sent to the poor house: here he became

violent and dangerous, and escaped. It was considered necessary for the protection of his family and the public from injury, that he should be committed to the public jail, where he remained a year or more, without any accommodation or comfort other than what is afforded to the common felon. He is now at a private hospital at an expense of three dollars per week to the county.

"'A maniac is now in our jail under sentence of death for a most atrocious murder. There was no indication of insanity at the trial nor when he was sentenced; but a few weeks after there was strong evidence of mental alienation, and his execution has been postponed under reprieves upon the representations of physicians and others. He is alone in his department, fettered and chained, and has been in this situation about nine months, de prived of all comfort, &c.'

"A report from another county thus describes its accommodations for those unfortunates

"'The accommodations for the insane in the county poor house consist of a single room, in which the furious and violent are confined,—male and female in the same apart ment, separated only by the length and restraint of their chains. Their hands being at liberty, they frequently strip themselves of all covering. The condition of these furious and violent maniacs, confined in the same room, destitute of all comforts, and with every thing around calculated to aggravate their madness, is degrading and deplorable in the extreme. Bad as is the condition of poor insane lunatics, dwelling in private hovels of poverty, the condition of the violent is better there, with more comfort and hope of alleviation and relief than in the mad apartment of the public poor house, chained with others as mad as themselves: although they may not have as regular an allowance of bread and meat in the humble cabin, yet there they may have eyes to pity, hands to afford relief, or voices to utter some comfort and consolation.'

"'The county poor house is under the control of a steward, who has a large farm, and perhaps a hundred paupers to employ, manage and provide for, from day to day. Changes in the office of steward are often occurring. The attending physicians are elected also at intervals of one or two years; their pay, if any, is very inconsidera- ble, and however strong may be their desire to alleviate the suffering of the insane, there are no facilities for the employment of suitable means.'

"Another report states:—'We have no special accommodations for the insane, and such as we have are wretched, they are kept in an old dilapidated building, scarcely tenantable. Five or six are chained in so many small separate compartments on the same floor. In a word, the insane of this country, whether in or out of the poor house, are, we are sorry to say, scarcely considered proper objects of medical attention and stil less of moral discipline.'"

The great importance and glorious results which now attend the treatment of the insane in proper asylums, is thus set forth:

"Thus far, we have considered only the evils that result from the present condition of the indigent insane of this commonwealth. A brighter picture has now to be pre- sented,—of the advantages that must accrue from adopting a course like that which it is the object of this Appeal to inculcate.

"In the early periods of history, when but little, if any, sound philosophy prevailed, and the human mind was enshrouded in darkness and prejudice, insanity was regarded as a direct infliction from the Almighty, which it was believed to be idle to attempt to remove; it has been, however, a triumph to the science and philanthropy of modern times to exhibit that it is one of the most curable of maladies, when treated early; and one of the most inveterate, when it has persisted for any considerable period; and yet, that in these last cases, much can be done to alleviate the condition of the sufferers.

"In the former Appeal evidence was afforded to show that the ratio of curability of

cases, which had existed less than three months, was nine in ten; and eight and a half in ten, when it had existed under twelve months; that on the other hand of three hundred and eighteen cases, which had fallen under the care of Sir WILLIAM ELLIS, at the York West Riding Asylum, and which had existed from one to thirty years, only twenty-six were cured; and that M. ESQUIROL, one of the greatest living authorities on the subject of insanity, had asserted, that after the disease had passed the third year of duration, the probability of cure was scarcely more than one in thirty. Such, too, have been the general inferences deduced from the results in several of the admirable insane establishments of our own country.

"There were admitted into the State Lunatic Asylum at Worcester, Mass., during the year 1839, *four hundred and eighteen* cases, of duration less than one year; of these there were discharged recovered, *three hundred and forty* cases, which is *eighty-one and one-third* per cent. The deaths of recent cases being deducted, the per centage will be *eighty-four and three-fourths;* 'and if,' says Dr. WOODWARD, 'the recent cases now in the Hospital, which are convalescing or have been recently admitted, all of which have had insufficient trial, are deducted, the per cent. will be *ninety-two and two-thirds*. Of all the patients that have been in the Hospital, the recoveries have been *forty-one* per cent.'

"How important then, on all accounts, that the commonwealth should possess an institution into which the maniac can be transferred on the first appearance of the hallucination, with every prospect of being soon restored to his position in society; and of being but for a short period a burthen to the public! In the absence of such an asylum, time is permitted to pass away; until the insanity becomes so far developed, that danger is apprehended from the lunatic being suffered to remain longer at large, when he is transferred to situations, which have been already indicated, and where the malady, which might have been readily arrested at the outset, has had time to produce morbid changes, which may set all art at defiance, and render the assistance of the commonwealth necessary throughout the remainder of existence.

"Although, however, the proportion of cures diminishes so greatly as the disease is more protracted, many instances are on record, in which persons who have been pronounced incurable, have been entirely restored. One memorable case is given by PINEL, of a lady who had been maniacal twenty-five years, suddenly recovering her reason."

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"By this sustained treatment of mercy and kindness, it is found that there are few, who are incapable of participating in appropriate labor or amusement. Every well devised lunatic asylum is so regulated as to be able to employ such of the patients as are fitted for them, and to whom they are fitting, in agricultural or horticultural labors: workshops are provided, and employment or amusement of some kind or other is carefully adapted to each individual.

"The attention which such occupations demand, produces a strong moral revulsion, and prevents the recurrence of the insane ideas, or if they recur, prevents them from wholly engrossing the mind of the lunatic. This is now so well understood, that in the different insane establishments of this country it is an object of anxious solicitude with the medical superintendents, and the results have been most salutary.

"Who, again, a few short years ago, would have credited the fact, that in a large insane asylum, four-fifths of the patients, who were in the institution during the past year, should have been brought to attend the exercises of the chapel on the Sabbath, and most of them very regularly, and that numbers should have conducted themselves in the chapels of the institutions with the greatest decorum, who in the halls were noisy, talkative and profane. Along with other circumstances the fact exhibits that however per-

verted may be the mental powers, there are but few who are unsusceptible of appropriate appeals when judiciously applied;—few who become

'———— a wreck at random driven,
Without one glimpse of reason or of Heaven.'

"With such knowledge derived from experience can we be surprised, that under the active and benevolent exertions of philanthropists, extensive pauper lunatic asylums should have been erected both in Europe, and in several of the States of this Union."

We have already occupied much space with this valuable appeal, but cannot dismiss it without making a concluding one which bears upon the pecuniary question,—an object of proper consideration.

"Were it necessary to appeal to other feelings than those of humanity, it might be readily shown, that in a pecuniary point of view advantage must inevitably accrue to the State from the contemplated establishment; and that there are but few insane, who may not be profitably employed in useful and in productive labor. The seventh annual report of the trustees of the lunatic hospital at Worcester estimates the produce of the farm from the industry of the patients at one thousand, nine hundred and fourteen dollars, without including the stock at the time in the yard. The market price of the work in the shoe shop, in the preceding eighteen months, is valued at about one thousand, eight hundred and twenty-two dollars,—and these are but two of the channels, it must be borne in mind, into which the productive industry has been directed.

"In the present condition of the insane poor of this commonwealth, they have to be supported by the community at even a higher expense than would be needed in a proper establishment; no facilities are afforded for appropriate labor, and their support must be wholly derived from the district in which relief is extended to them. So satisfied, indeed, are the poor law Commissioners of England, of the economy of such establishments, that they are every where erecting their asylums for the insane paupers separate and distinct from the poor houses. But this point, which, by a few, has not been accurately appreciated, and has been urged as an objection to the contemplated asylum in Pennsylvania, has been set at rest numerically in one of the States of this Union. We quote from the Sixth Annual Report by the trustees of the same excellent institution referred to above.

"'In order to present this subject strictly as a pecuniary or economical matter, the trustees requested the superintendent to prepare a separate table, showing the actual expense of twenty of the earliest cases received into the Hospital, which, owing to the duration of the disease when admitted, were incurable, and therefore still remain; and doubtless will continue a charge upon the State as long as life lasts. These cases are not selected, but are taken in their order. They are the first twenty cases of admission which now remain. Their expense, before admission, is computed at *one dollar and fifty cents* a week. These cases have already cost the commonwealth *one thousand, five hundred and fifty dollars and fifty cents* each. On the other hand, and as a contrast to the above, the table shows the actual expense of the last twenty cases, which have been discharged from the Hospital cured. It amounts only to *forty-seven and a half dollars* each. Hence it appears, that the expense already incurred for taking care of twenty cases, which, from neglect, had been suffered to run on until they became incurable has been more than thirty-two times greater than the expense of the same number of cases for which early and proper provision was made. The recent cases are now well; the old ones will doubtless continue a charge through life. However extraordinary it may appear, it is still true that taking an average chance for cures, it would

have been a pecuniary saving to the State to have seasonable care of these old cases, though at an expense of eighty dollars a week, rather than by neglect, to have incurred the necessity of supporting them, even up to the present time.'

"Bearing these estimates in mind, and in addition, the now well ascertained fact, that ninety per cent. of the recent cases can be restored so as to be able to maintain themselves and family; and that, in the opposite case the disease may be rendered perpetual, so that both the unfortunate sufferer himself, and all those that are dependent upon him for support, may remain a burthen to the public, and it must be manifest, that the pecuniary saving of such an asylum would be immense; and that, consequently, it ought to receive zealous support not merely on the score of philanthropy but of economy."

The concluding words of the appeal will apply just as forcibly to the citizens of Maryland as of other states.

"Shall we be content with inaction, whilst our brethren every where are sedulously employed in their endeavors to restore to mental existence those who are afflicted with the most awful of dispensations? Can we remain satisfied with their condition at home in their own miserable hovels, or with immuring them in institutions, where but imperfect attempts at restoration are practicable, and where they are merely kept from inflicting injury upon themselves or others, with the moral certainty that in a large majority of the cases, hallucinations, which, under other arrangements, might have been wholly removed, must become more and more firmly implanted in the mind, until ultimately the wretched maniac sinks prematurely under his excitement, or subsides into a state of hopeless melancholy or fatuity? Or can we hesitate to exert all our energies to diminish evils of heart-rending extent, and to adopt measures that may be within our reach, for restoring the unfortunate lunatic to his friends and to his country; or of ameliorating his hard lot where perfect recovery is impracticable?

"The evil that results from one single year's delay is inappreciable. We know, however, that it must be great, and that even a brief postponement removes the chances of restoration from hundreds, whose reason is, as it were, in our keeping."

We have now made much larger extracts from this appeal than is usual in a bibliographical notice, but we think the importance of the subject demands it, and we feel it an act of duty to second with all our ability the commendable beginning in this state made by Dr. Robinson, one of the physicians of the Baltimore Alms House Infirmary in the appendix to the Hospital Reports contained in the present number. We trust that the effort will engage the attention of noble spirits in this state who are desirous of doing good, and that the attention of the present Legislature will be aroused to act immediately on a subject of such interest to every lover of his species. For, to apply the words of the report to our own state, "the evil that results from one single year's delay is inappreciable. We know, however, that it must be great, and that even a brief postponement removes the chance of restoration from hundreds, *whose reason is in our keeping*."

Report of the Directors of the Connecticut Retreat for the Insane. Hartford, 1840: Case, Tiffany, & Co.

We believe this is the Sixteenth Annual Report of this well conducted institution. We content ourselves with a few extracts, which will give a better idea of its interesting character than a condensed analysis.

"From the reports of the physicians, it appears that on the first of April, 1840, one

thousand patients had been admitted into the Retreat. About five hundred of these were laboring under some form of insanity of recent date, and brought to the institution with the expectation of benefit from the means employed for their recovery. Of this number, four hundred and fifty have been restored to reason and returned to their families, and to those stations of usefulness which they had occupied before their attack.

"Of the five hundred cases of chronic insanity, a large number have been cured; many have left the institution much improved, and others remained, not for the purposes of medication, but because they were made more comfortable there than they could possibly have been at their own homes. Even of this latter class—the forlorn hope of the institution—there have been some happy recoveries occurring, two, five or ten years after the attack, and when all expectation of such relief had been obliterated from the minds of their relatives and guardians. Those who have witnessed these results, and those who have experienced these benefits, are among the warmest and best friends of the institution."

We approve most heartily of power reposed in the physician, who is Dr. A. Brigham, so well and extensively known as one of the best of our American writers.

"The physician is nominated by a committee of the Medical Society, and approved by the directors. He is the head of the institution—is responsible for its management—conducts the medical and moral treatment of the patients, and maintains a regular correspondence with their friends."

There is a very important subject which is alluded to in the following extract, and is of the greatest value in the moral treatment of the insane.

"The importance of religious instruction, as part of the system of moral treatment of the insane, has not been overlooked. Those of the patients who are capable of joining in religious services, assemble every evening, when the chaplain reads a portion of the sacred scriptures and conducts the devotions of the family. On Sunday he preaches to the assembled household, and often, during the week, presents the truths of christianity and its consolations to those who are care-worn, anxious, and dejected. Much good has resulted from this practice, and great credit is due to the gentleman, who has, with uncommon discretion and sound judgment, performed this sacred duty."

From a table appended to the Report, we give the following statistical details which we place on record for reference. The institution was opened for the reception of patients, April 1, 1824.

Whole number admitted up to the present time, 1001. Of these 563 were cured. Recent cases admitted, 537; of these there were cured 451. The whole number of deaths since the institute opened is 60.

An Introductory Lecture, delivered before the Medical Class of the University of Maryland, September, 1840, by Wm. E. A. Aikin, M.D. Professor of Chemistry and Pharmacy. pp. 32. John Murphy, Market street, Baltimore.

The young gentlemen of the Medical Class did but justice to Prof. Aikin and to themselves in printing this able introductory to the course of chemistry.

We consider it exceedingly creditable both in matter and in style, and shall, as the best proof of the correctness of our judgment, make a few extracts.

The advice given by the professor to students of medicine, is most excellent. How deeply is it to be regretted, that young men are so blinded to their own best interests, not to remember the impressive lesson that youth is the introduction to manhood, and

that teacher does an act of duty and the truest kindness to the young men who attend his lectures, who addresses them in the following language:

"Of the hundreds who have preceded you with aspirations as high, with resolves as firm, with the same noble ambition that urges you to outstrip your compeers in the race before you, some, alas! have been tried and found wanting. Their firmest resolutions have yielded when assailed by the temptations which beset them, and which equally lie in wait for their successors. The allurements of pleasure, the intoxicating bowl, the thousand snares that beset the path of youth, entangled their heedless steps before they could be persuaded of their danger, and recreant to the cause of truth and science, and deaf to the voice of duty, they fell to rise no more. But how bright the contrast if we follow the progress of those who closed their ears, and steeled their hearts, to the song of the syren. Who, like the prudent ULYSSES, bound themselves with chains lest they should be tempted to linger nigh the accursed shore, and trust their virtue to the enchanting sound. How nobly have they been repaid for their self-denial! The approving voice of conscience and the praise of those who themselves are worthy of praise, have amply recompensed them for their exertions; while their Alma Mater points to them exultingly as bright exemplars for the imitation of her young novitiates."

How just and noble are the sentiments contained in the following extract:

"On the tablet of creation, exposed to our view, we find written in words of light the high and sublime truth, that the human mind, an emanation from the divinity, departs from the eternal order of its nature, if it bends to ignoble influences, and obeys where it should rule. Every error to which it does homage, every prejudice and respect for opinion which are suffered to stifle the free expression of its convictions, every passion whose voice sounds above the calm accents of wisdom, affects not only that individual moment of its history, but degrades it from its high position; and its progress, from that time forward, must be from a lower step in the scale of intelligence. The horizon of its vision is narrowed, and it less clearly beholds in each truth, the connecting links of universal wisdom, and the grand chain of mutual support and dependence which pervades the universe. And if there is one consideration more than another, that should nerve us to pursue our course unfaltering, and make us shrink from every dereliction, it is the thought, that each will sink us in the scale of intellectual existences, and remove our starting point farther from our goal."

We shall conclude our notice of this excellent lecture with the following, which will give a good idea of Prof. AIKIN'S style in the historical review of the facts connected with the rise and progress of electricity and galvinism.

We select the part referring to the latter subdivision of electricity.

"In the year seventeen hundred and sixty-seven, a German by the name of SULTZER, in a work styled 'The General Theory of Pleasures,' mentioned a singular sensation perceived, when a communication was made between two slips of different metals, placed one above, and the other beneath the tongue. He considered it as the effect of a vibratory motion, excited by the contact of the metals and acting upon the nerves of taste; and content with this loose explanation, pursued the inquiry no farther. The powers of the electrical eel, had been known to the inhabitants of the shores of the Mediterranean, from remote antiquity. OPPIAN, a Greek poet of the second century, had commemorated them in verse:

'The hooked Torpedo, with instinctive force,
Calls all his magic from its secret source;
And through the hook, the line, the taper pole,
Throws to the offending arm his stern control:

The palsied fisherman, in dumb surprise,
Feels through his frame the chilling vapours rise;
Drops the vain rod, and seems in stiffening pain
Some frost fixed wanderer o'er the icy plain.'

"But the cause of this magic was unknown, until seventeen hundred and seventy-two, when it was investigated by WALSH, who showed its identity with ordinary electrical phenomena. This announcement gave rise to many fanciful hypothesis respecting the universal agency of electricity, and its identity with the nervous fluid, but they excited no particular attention at the time. The experiments of both SULTZER and WALSH, were, however, recalled to the attention of the learned, by an accidental observation of GALVANI, in seventeen hundred and ninety. The anecdote connected with his discovery of the motion produced in the limbs of a dead frog, by contact with two dissimilar metals, is too familiar to need repetition. These motions were perfectly inexplicable, upon any known principles, and falling under the notice of the illustrious BOLOGNESE, opened a rich and illimitable field in physical science. He repeated and varied his experiments, until he fancied he had discovered the cause of the movements, and thought himself warranted in announcing the existence of a peculiar agent inherent and innate in living animals, which he termed animal electricity and others termed galvanism.

"The celebrated professor VOLTA, of Pavia, took an entirely different view, and proved conclusively, that no new agent need be assumed to account for the results obtained. He showed that an electric current is created by the contact of three bodies, of dissimilar conducting powers; whether those three are two metals and a fluid, or two fluids and a metal. And it was subsequently ascertained, that the contact, even of dissimilar non-metallic bodies, would induce feeble electric currents; and hence, VOLTA referred the convulsions of the recently killed animal, to the passage of electricity through the nerve. Misled by the plausible indications of animal electricity, physiologists had thought it sufficient to explain all the phenomena of animal life; nay, life itself was thought dependent on the circulation of this imaginary fluid, between the muscle and the nerves. While these notions were prevalent, experiments on animal irritability were infinitely multiplied, and even the human form in the bodies of recently executed criminals was subjected to the influence of electrical combinations, until scarce a trace of humanity could be recognised in the distorted mass. These experiments have long since lost the deep interest attached to them, by conflicting views. Necessary as they were at one time to convince men of their errors, they are no longer required for any of the purposes of science, and their repetition in our day, to gratify a misguided, if not a depraved taste, cannot be too strongly reprobated. VOLTA recalled the attention of the scientific world from its wanderings, and demonstrated that the same principle, long known as electricity, was the sole cause of all the phenomena of galvanism. Reasoning from the effects produced by the contact of two slender metallic rods, it soon occurred to him, that a repetition of the metallic series, would produce a multiplied effect, and furnish more striking results; and by a most successful prosecution of his idea, for nearly ten years, he at last, in the year eighteen hundred, gave to science the pile which bears his name: an instrument, which, in the hands of succeeding chemists, by the sagacious application of its unlimited powers, has given results, of which, says Dr. URE, it would be difficult to speak, in the cold language of philosophy; surpassing in importance, as they do in splendor, all preceding discoveries. It was hailed by philosophers with an enthusiasm commensurate with its importance, and employed with a degree of skill, attention and assiduity, as unprecedented as the success by which it has been attended."

The American Medical Almanac for 1841. Designed for the daily use of practising physicians, surgeons, students and apothecaries. By J. V. C. Smith, M.D., Editor of the Boston Medical and Surgical Journal. Vol. III. Continued annually. Boston: Otis, Broaders & Co.

Our respected cotemporary of the Boston Journal, in reference to the present number of the Medical Almanac, says, "the first volume was considered by many too small. To remedy an essential defect, the succeeding for 1840 was considerably enlarged; but more persons were dissatisfied with the alteration than were gratified. While some desire the minutest statistical tables, others care nothing about hospitals, infirmaries or the organization of medical institutions. Under these circumstances the size has been diminished."

Although we have great respect for the opinion of our elder and brother editor; yet we must disapprove entirely of his injuring a most useful and valuable publication to suit the taste and capacity of those who think a "little knowledge is a dangerous thing." We hope the next number will be more full of the very matter these superficial persons object to in those which have preceded it; and we are bound in candor to say, that so far as those matters are concerned, the present number of the Almanac is inferior to its immediate predecessor. But we cannot but approve most highly of many of the articles contained in the original department; and would particularly commend the short sentences on auscultation by the well known Dr. Bowditch, which alone are worth more than the price of the almanac; and the paper by Dr. John A. Dix, on the division of the muscles of the globe for strabismus. We earnestly recommend every physician and student of medicine to purchase a copy of the American Medical Almanac, annually.

FOREIGN INTELLIGENCE.

MEDICAL.

From the British and Foreign Medical Review.

Medical Etiquette; or an Essay upon the Laws and Regulations which ought to govern the conduct of Members of the Medical Profession in their relation to each other, &c. By Abraham Banks, Esq., M.R.C.S.L. &c. London, 1839. 12mo. pp. 104.

The title of this work is not strictly appropriate. The term *etiquette* relates only to manner and external observances, whereas some of the points here discussed, involve the principles of professional morality, and come under the head of what is usually denominated medical ethics, while others have reference to the organization of the profession, the rights of medical practitioners, and other matters constituting what has of late years been called medical politics. We see no objection, however, to viewing these subjects in a common light. The state of manners, has an intimate relation to that of morals, though not always of a direct or obvious kind, since it must be admitted that what is called good breeding often springs from the most corrupt moral sources, while the ingenuous expression of the best feelings of our nature would occasionally give rise to outrageous infractions of politeness. Still we think it may be assumed as a general position, that good manners, in the truest sense of the term, are indications of benevolent feeling and of an intelligent and cultivated mind; and this may be more especially maintained with regard to the manners of a profession which, having for its objects the pursuit of natural truth, and the permanent welfare of our species, ought to exempt its members from those changeful modes of frivolity which float on the surface of society, and form the atmosphere in which the minor vices delight to play. We believe, indeed, that if a high tone of mind and feeling were general throughout the medical community, a code of etiquette would scarcely be required; and manners and usages peculiar to practitioners of medicine would consist merely in some slight modifications of the ordinary habits of gentlemen, which a few particular positions, fewer, perhaps, than is usually imagined, render necessary in our own as in all other professions. Again, we are convinced that an improved state of morals and manners would inevitably give rise to a new organization of the profession and a new system of medical politics.

But it is time to notice Mr. Banks. His little book is evidently written in a good spirit, and some of the opinions it contains are judicious; but we would strongly recommend him, in his next edition, to chasten his style and keep closer to his subject; for it must be acknowledged that his remarks are sometimes entirely irrelevant—that certain passages intended to be rhetorical are eminently bombastic and unmeaning—and that others, meant to be humorous, degenerate into mere buffoonery. Thus at page sixteen

he expatiates on the baseness of allowing our conscience to be silenced in political matters by considerations of interest. On this there can be but one opinion among honest men; but we cannot perceive that the sentiment applies more to the medical practitioner than to any other person; we therefore deem its expression in this place quite superfluous, while the language in which it is clothed will be found to justify abundantly our charge of inflation. For example:

"The abandoned wretch who prostitutes his political principles to his wordly interests is sunken to the lowest depths of depravity, degradation and dishonesty; he is a robber and assassin; and would, if he had the power, not only demolish every outpost of all the social institutions of humanity, but with fiendish spirit would strike at the very foundations of that rock on which Justice has built her throne." p. 16.

——————Pulmo animæ prælargus anhelet!

Again, chap. xx. begins as follows:

"There are a great many trifling questions about which there seems to be no general understanding, and it is to be hoped there never will, as they are quite unworthy of notice. It may perhaps be as well to allude to two or three, just to illustrate our meaning, such as whether prescriptions should be written in English, Latin, Greek or double Dutch? Whether it be lawful for one medical practitioner to decipher the prescription of another? Whether medical men should dress in black or brown: wear kid or Berlin gloves; eat peas or beans, or go without if they cannot get either," &c.

All this is very silly, and so far from being worthy of a teacher of medical etiquette, would be far beneath the dignity even of a popular master of the ceremonies.

Mr. Banks' treatise consists of twenty-one chapters, of which the first four are occupied with the relations of medical practitioners to each other, the terms on which they should meet in consultation, and the respective remuneration of the attendant in ordinary, and the practitioner called in for the occasion. We shall not enlarge much on these points, because we do not think it possible they can be satisfactorily adjusted while the organization of the profession remains in its present state. We cannot at all agree with our author that *years* should be made the grand basis on which to found distinctions with respect to rate of remuneration. We do not think that the public would be easily persuaded to set a higher value on the opinion of a stupid man of sixty than on that of a clever man of thirty. At the same time we fully coincide in the popular predilection for the elder man, supposing a parity of abilities, education and opportunities.

It appears to us that we cannot do better than imitate the French in equalizing the rank of the profession by demanding of all its members the same course of study, and the same criteria of proficiency, and disjoining altogether, the profession of medicine from the trade or art of the *pharmacien*. In such a state of things, the position of the consulting practitioner, (we use the common phrase, *consulted* would be more correct,) ceases to be a point of difficulty. Whoever is called into consultation naturally takes the precedence *on that occasion*, nor do we see any reason why he should not receive a proportionally higher fee. If A takes precedence of B to-day, B may take precedence of A to-morrow. If an individual be very frequently called into consultation, it shows that the profession or the public, perhaps both, have formed a high estimate of his abilities; and he may become gradually a consulting practitioner *par excellence* on a ground of distinction, which ought not to wound the self-love of his brethren; because although it be quite possible that his reputation may be greater in the eyes of the public than of the profession, and may be owing rather to the attraction of

his manners or the dexterity of his policy than to any real superiority of professional knowledge or talent, this must always be the case, to a considerable extent, under every possible organization of our own or any other profession—for it arises from the incapacity of men to judge of what they do not understand, and their natural disposition to found confidence on personal predilection where data are wanting for a correct estimate of actual merit.

In chap. vi. "On Mode of Payment," our author insists on the expediency of remunerating medical practitioners by *fees paid at the time*. To this we entirely assent, in regard to the upper and middle classes of society; nor, as far as concerns them, can we perceive the smallest validity in the objection frequently urged against it. We are told that the bulk of our population could not afford to pay their medical attendant at each visit. The answer is obvious: England is the richest country in the world; there can, therefore, be no reason why the inhabitants of England should not do, in this respect, what is done by those of France, Spain, Italy, and we believe, all other European countries. It may also be suggested that if it be not convenient to the patient to fee the doctor at the time, it is probably still less convenient to the latter to wait for his money—for we are a proverbially poor profession, all the world over.

In chap. viii. "On Attendance on Professional Persons," Mr. Banks objects to the notion entertained by many that medical practitioners are bound in duty to prescribe gratuitously for their brethren and their families. He admits that there are many circumstances which should call forth our liberality, and induce us to decline the proffered remuneration, but thinks that where one medical man attends another, or the near relative of another, during an illness, etiquette requires that the offer of payment should be made, leaving its acceptance discretionary. We cannot agree with this. One medical man has assuredly no claim to the gratuitous services of another, as a matter either of legal or of moral right; but we think every man endowed with any refinement of feeling would decline remuneration from a professional brother or a member of his household, under all circumstances. When a non-professional person consults a medical practitioner, he does so in the belief that the latter has knowledge and skill in certain matters of which he is himself ignorant, and that the exercise of these, in his behalf, is essential to his well-being, and entitled to compensation at his hands; but when one medical practitioner calls for the aid of another in his own case, a disparity of knowledge and skill cannot, in courtesy at least, be supposed to exist between the two professors of the same art, and we should, therefore, for our own part, always decline any remuneration from a professional brother, because our acceptance of it would seem to place him in the position of one who knew less of medicine than ourselves. This may appear rather a metaphysical view of the subject; but we believe that on near inspection it will be found to indicate the real point of delicacy—and, as before observed, the question is one of *delicacy*, not of *right*. Again, when we attend a member of the family or household of another practitioner, we attend *in his stead*, and as he would not receive remuneration in such a case, it would be in some sort illogical as well as indelicate to put ourselves on a different footing. With regard to the families of deceased practitioners this reasoning is no longer applicable; but still we think it is a graceful tribute of respect to the memory of one with whom we have been united in the freemasonry of science, to exercise gratuitously towards his nearest kindred the art which he once practised, or should in charity be presumed to have practised, with honor and usefulness. It appears to us, also, that there would be a degree of coarseness, a want of sentiment if not of feeling, in reminding the survivors of their loss, by making our own relation to them less cordial than it would formerly have been. If it be indelicate to accept, it can be scarcely judicious to offer remuneration under the foregoing circum-

stances. We have indeed known individuals, with more chivalry than judgment, who have been highly offended at such an offer from a fellow practitioner. This, however, is ridiculous: money is such a precious commodity that when a man offers it to us, (unless as a bribe,) he must needs have good intentions towards us; and it would therefore be both foolish and ill natured, to be angry with him for so doing.

Chap. ix. treats of "Remunerations for Prescriptions and Medical Certificates." Our author here animadverts justly on the impropriety of a patient's asking a general practitioner to give him the prescription for the medicine he is taking, without offering to fee him for it.

This is one of the many mean advantages which vulgar-minded persons are wont to take of the profession, and which the latter is generally too little inclined to resist. Liberality can never consist in allowing ourselves to be cajoled; and we fear that what frequently passes under this name, among certain of our brethren, is nothing more than a sneaking submissiveness and dejection of spirit, arising from the conjoint effects of poverty, excessive competition, the consciousness of an anomalous position in society from the union of a profession with a trade, and other causes; which diminish self-respect, and by a necessary consequence encourage impertinent freedom and unreasonable exaction. Mr. Banks further protests against the injustice of expecting practitioners to give certificates relating to health, gratuitously. Here also, we, for the most part agree with him. A medical certificate is, to all intents and purposes, a professional opinion on a case formally delivered in writing; and as such, is as well entitled to a fee, as an opinion orally delivered at the bed-side of a patient. It should also be remembered, that to record in writing an opinion on the state of health of an individual, is sometimes no pleasant task; first, because in case of the smallest error of judgment, it lays us open to public animadversion; secondly, because we may feel ourselves bound in conscience to render a less favorable account of a person's health than he may himself desire; and hence we run the risk of giving grievous offence, however unreasonable it may be that we should incur wrath, for stating what we believe to be true, when publicly called on to do so. It may be added that it is not usual for members of other professions to give gratuitous certificates relating to matters with which they are conversant. For all these reasons, we think medical practitioners should not be expected to give certificates without being feed for their trouble, except in the case of poor persons to whom the certificate may be of consequence, but who are not in a condition to pay for it.

In chapters xii. and xiii., Mr. Banks considers certain points of professional morality arising out of cases where a practitioner is accidentally sent for to the patient of another, or where a former practitioner has been unhandsomely dismissed. We do not think that any rule can here be of much use, except the great christian law, of doing as one would be done by: whoever adheres to this, and has a moderate degree of judgment to guide his principle, cannot err materially. Our author concludes his remarks on these subjects with a most singular, and if correct, most alarming announcement, viz: that it is all up with the public morals throughout the world, unless the medical profession take them under their protection! It appears that governments, hierarchies and schoolmasters, do infinitely more harm than good, and make us worse than we should be without them. The doctor is your only moralist.

"Alas! thou poor Morality! If thou art deserted and forsaken by the only men capable of throwing a shield of protection around thee, and infusing new vigor into thy spirit, the members of the medical profession, what hope hast thou? Nay, despair and die!" p. 53.

We confess we tremble at the approaching alternative of medical supremacy or uni-

versal turpitude, and earnestly suggest to our brethren that we should fit ourselves for our high destiny by mending our manners as fast as we can; for which, to speak honestly, we think there is considerable room.

Chapter xvi. is on "Keeping Shops." Our author here maintains that the circumstance of keeping a shop does not derogate in any degree, from the personal respectability of a practitioner of medicine. We admit this to be perfectly true with regard to the individual; at the same time we do not wish to disguise our conviction that shop-keeping is highly derogatory to the profession taken collectively. With the individual it is often a matter of necessity; for a young general practitioner, who has nothing but his profession to look to for his maintenance, has scarcely any other alternative; and he may possess, while standing behind his counter, greater talents and acquirements, a more honorable mind, and more elegant manners than his fortunate neighbor who rejoices in an immunity from many-colored bottles. But it cannot, we think, be disputed, that an active participation in trade of any kind tends to subvert that frame of mind which befits a member of a learned profession. We apprehend also that it will be long ere the public mind is dispossessed of the prejudice (for such it unquestionably is) which assigns to the shop-keeper a lower station in society than to many another man whose calling may be less useful, and whose personal claims to respect may be far inferior.

Chap. xvii. is on the "Connexion between Practitioners and Chemists." Mr. Banks sees no more impropriety in a physician or other medical practitioner prescribing at a druggist's shop for an annual consideration, than in his attending at a dispensary for a fixed salary; and conceives the only difference to be that in the one case he is engaged in the business of a private and in the other of a public dispensary. Neither can Mr. Banks see anything unprofessional in a physician's holding a share in a druggist's business, provided he does so openly and without disguise. He thinks there is no virtual difference between this and his holding a share in a railroad, a bank or a trading company. There is a show of reason in this, but we think Mr. Banks has entirely overlooked the real objection to every kind of confraternity between medical practitioners and druggists. This objection we conceive to be that such unions tend to strengthen in the public mind that identification of the profession of medicine with the drug-trade which has long exerted so baneful an influence on medicine in this country. It tends, in short, *to perpetuate the apothecary*, which is the very thing that enlightened men in all classes of the profession wish to abolish. And it tends to perpetuate the evil in a more absurd form than ever: the apothecary, as he now stands, is half doctor, and half druggist, which is anomalous enough, yet he is but one man; whereas an association of a physician with a druggist, forms a sort of Siamese-twin apothecary—a piece of professional teratology which nobody knows what to make of.

We have already devoted so much space to Mr. Banks' production that we must refrain from commenting on some other subjects on which he has descanted, as that of dispensaries; the conduct to be observed by and towards pupils, assistants and junior practitioners; solicitation, meaning thereby the beggarly and disreputable practice of leaving cards and calling at houses in the hope of getting patients, &c. These topics are handled by our author with more or less judgment, and we fear we must add with the same occasional discursiveness and intermixture of fustian, which we have had to complain of in those parts of the book which have been more particularly noticed. On the whole, though we cannot compliment Mr. Banks on his talents as an author, we may nevertheless recommend his work to the perusal of our readers. Its general spirit is praiseworthy, and the adoption of some of its precepts would materially improve the state of the profession.

ANATOMY AND PHYSIOLOGY.

On the structure of the Macula Lutea (Foramen of Soemmering) of the Human Body. By Dr. GRUBE, of Konigsberg.

THE author had previously made many observations on the structure of this part, but their results had been unsatisfactory, in consequence of the length of time that had elapsed after death before the eye was removed. The examination here described, is that of an eye taken from a body a few hours after an accidental rupture of the spleen.

The retina adhered so firmly to the vitreous humor that the greater part of the latter could be removed only by carefully cutting with scissors. With the naked eye it was at once easily discerned that the level of the macula lutea was not a little raised above the surface of the retina. On placing it and the part around it under a microscope magnifying three hundred times, and compressing it but slightly, the maculata lutea presented exactly the appearance of shagreen. Longish-round corpuscles, which were smaller the nearer they were to the centre, and there not more than one-fourth or one-fifth of the size of the medullary corpuscles on the surface of the rest of the retina, were arranged close together and with great regularity, like rays passing from the centre to the circumference of the spot. Towards the circumference they became larger, and gradually merged into the form and size of the corpuscles of the rest of the retina. The circumference, however, did not form a regular circle, but the small medullary bodies radiated beyond it at some parts, to different distances from its outline.—*Muller's Archiv. Heft* i. 1840.

On the Alterations which Nervous Fibres undergo after Division. By Professor NASSE, of Marburg.

THE results of the lengthened investigations which form the subject of this paper may be briefly stated.

In frogs, the natural average thickness of the filaments of the ischiatic nerve is 0.000416 inch; the majority are much smaller: the filaments of the posterior tibial are of about the same size; those of the brachial rather less, viz: 0.0003835. The smallest size observed was 0.00027 or 0.00028, and this was so common that the author is inclined to believe it to be the true diameter of all filaments unaltered by external influences, or at least of one kind of them. The limits of the size were 0.00027 and 0.00045.

The filaments above the division, after it has healed (and usually about five months after the operation,) are almost constantly larger than those below it. The average increase of size is 0.00005 to 0.00006.

The average size of the filaments which are paralyzed by the division is but little different from that of health; many months after the operation they are found only a little smaller. Their decrease in size is greatest when the animal is generally much emaciated; and is greatest of all when the main artery of the limb is divided at the same time as the nerve.

After destroying the connexion of a nerve with the spinal cord, its filaments first lose their cylindrical appearance, and from wrinkling acquire a transversely striated appearance, so that they seem to be divided into a number of short pieces. Next, small flat globules form from the breaking up of the medulla, and the filaments become darker

and more opaque. Afterwards these fat globules unite into larger drops, and then the walls of the nervous tubuli gradually diminish in their size.

The filaments that form in the substance by which the divided extremities are united are rather smaller than the old ones, but in all respects similar to nervous fibres; their average diameter is 0.000374.

Similar observations made on rabbits had very nearly the same results; but it was remarked that as in warm-blooded animals generally, the nutrition of all the tissues is more under the influence of the spinal cord than in the cold-blooded, so here the destruction of the divided nerves was much more rapid in rabbits than in frogs; and that although kept without food for five months in the most unfavorable season of the year, the latter gave evidence of much more energy of reparation than the former which were well fed.

Although there was no doubt of new nervous fibres being formed between the extremities of the divided nerves, yet NASSE never found the motion or sensation return in the paralysed limbs, though he sometimes kept the animal for three quarters of a year. He imagines that in the cases in which others have seen such a restoration of power, the divided portions must have been at once placed in exact apposition, so that the filaments could not lose their oily contents, for he clearly determined that the least alteration in the structure of a filament is sufficient to destroy its conducting power, *Muller's Archiv*, 1839. Heft v. p. 405.

On the Function of the Ovaries in Menstruation. By Dr. LEE.

IN the article on M. GENDRIN's Philosophical Treatise of Medicine, in our last Number, p. 75, the following remark was made: "That M. GENDRIN should have found the ovaria ruptured in five cases where menstruation was present is a remarkable coincidence. In a communication read at the Medico-Chirurgical Society, by Dr. ROBERT LEE, last year, a similar occurrence was stated to have been met with by him in two instances. We want but a few more such facts to establish M. GENDRIN's hypothesis, or at least to give it the aspect of a law rather than of a mere coincidence; and until these are obtained, we would again repeat—*not proven.*"

In justice to Dr. LEE, we beg to mention that the two instances above alluded to of ruptured Graafian vesicles found in ovaries removed from the bodies of women who had died during menstruation, are merely supplementary to the collection of facts which Dr. L. published seven years ago in the Cyclopædia of Medicine; and, also, that the views he deduced from them are essentially the same as those lately brought forward by M. GENDRIN as a new theory of menstruation. We alluded to M. NEGRIER'S claim to priority in opposition to GENDRIN; but it is quite evident that neither the one nor the other, has any right to be considered *historically* as original observers, however they may have been so in fact. It will be seen from the following extract from the Cyclopædia of Medicine that Mr. CRUIKSHANK must be looked on as the original observer of the fact, and Dr. LEE, the author of additional and confirmatory facts; and indisputably, as far as we can trace, the first propounder of the view that menstruation is connected with certain changes in the ovaria.

"There are certain facts which seem to prove that it is not to the influence of the uterus, but of the ovaria that we are to attribute all the changes which take place in the female pelvis, in the mammæ and uterine system at the period of puberty; and it seems not improbable from the following facts, that it is also to certain changes in the Graafian vesicles at the time of menstruation that all the phenomena of that singular process are to be referred.

"On the 11th of March, 1831, we examined the body of a young woman who died during menstruation from inflammation of the median basilic vein. The left ovarium was larger than the right, and at one point a small circular opening, with thin irregular edges, was observed in the peritoneal coat, which led to a cavity of no great depth in the ovarium. Around the opening, to an extent of three or four lines, the surface of the ovarium was of a bright red color, and considerably elevated above the surrounding part of the peritoneal coat. On cutting into the ovarium, its substance around the opening and depression was vascular, and several Graafian vesicles of different sizes were observed. The right ovarium was in the ordinary state. Both fallopian tubes were intensely red and swollen, and their cavities were filled with menstrual fluid. The lining membrane of the uterus was coated with the same fluid, and the parietes were soft and vascular. The size of the uterus was not increased.

"In the autumn of the same year a woman under twenty years of age, died suddenly from acute inflammation of the lungs while menstruating. The body was examined by Mr. John Prout, and the uterine organs were brought to us for inspection. A red soft elevated portion of the right ovarium was also here observed, and at one part the peritoneal coat, to a small extent, had been removed. The edges of the opening were extremely thin and irregular, and in the substance of the ovarium, under the opening, was an enlarged Graafian vesicle filled with transparent fluid. Numerous small blood-vessels were seen running along the peritoneal coat of the ovary to the opening. When the substance of the ovarium was laid open, several vesicles of various sizes, and at different depths, were found imbedded in it. The left ovarium presented a natural appearance. The free extremities of the fallopian tubes were gorged with blood. Their cavities were filled with a red-colored fluid. The uterus was not enlarged, but the parietes were gorged with blood, and the lining membrane of the fundus was coated with menstrual fluid. A small coagulum of blood likewise adhered to the upper part of the uterus.

"On the 2d of July, 1832, Sir Astley Cooper, to whom the writer had mentioned these cases, sent him the ovarium of a woman, who had died from cholera while menstruating. The ovarium was much larger than natural, and at one point there was a small irregular aperture in its peritoneal coat through which a portion of a slender coagulum of blood was suspended. On cutting into the substance of the ovarium, it was found to be occupied by three small cavities or cysts, one of which was filled with a clear ropy fluid, another with semi-fluid blood, and the third, which communicated with the opening in the peritoneal coat of the ovarium, with a firm coagulum.

"On the 18th of November, 1832, the uterine organs were removed by Messrs. Girdwood and Webster from the body of a young woman who had died suddenly the preceding day when the catamenia were flowing. Both ovaria were remarkably large, and both fallopian tubes were red and turgid. The peritoneal coat of the left ovarium was perforated at that extremity which was nearest to the uterus by a circular opening, around which aperture, for several lines, the surface of the ovarium was elevated, and of a bright scarlet color, like extravasated injection. The margin of this opening was thin and smooth, and did not appear to have been produced by laceration. Its centre was slightly depressed below the level of the edges, but there was scarcely the appearance of a cavity beneath. The right ovarium was much larger than the left; and, when cut into, a cavity or cyst was found which was filled with half-coagulated blood. The peritoneal coat of this ovarium was entire.

"The uterus was large, and when cut into, the parietes appeared to contain an unusual quantity of blood. The inner membrane was of a bright red color, and coated with a thin layer of catamenial fluid. Both fallopian tubes were red and turgid, and

the interior of the left was filled with menstrual fluid, but nothing in the form of a Graafian vesicle could be detected in the tube. The appearances now described have been accurately represented in a drawing made from the parts within two hours after they came into the author's possession.

"In a paper by Mr. CRUIKSHANK, published in 1797, there is an account of similar appearances having been observed by him in a young woman who had died at the monthly period. 'I have also,' he says, 'in my possession the uterus and ovaria of a young woman who died with the menses upon her. The external membranes of the ovary were burst at one place, from whence I suspect an ovum escaped, descended through the tube to the uterus, and was washed off by the menstrual blood.' "—*Cyc. of Pract. Med.—art. Ovaria.*

The following is the case recently communicated to the Medico-Chirurgical Society:

"On the 14th of January, 1837, a woman, thirty-seven years of age, who had long suffered from hysteria, died suddenly in St. George's Hospital, during menstruation. No morbid appearance was found to account for her death. A small circular aperture was observed in the peritoneum of the left ovarium, near the point where the corpus fimbriatum is fixed to the extremity of the ovarium. This opening communicated with a cavity in the substance of the ovarium, which was surrounded with a soft yellow substance of an oval shape."—*Med. Chir. Transactions*, vol. xxii. p. 335.—*British and Foreign Medical Review.*

Varieties in the form and position of the Liver.

Varieties in form occasionally occur, but they are more rare in the liver than in almost any other organ of the body. I have seen the left lobe so small, as to appear but a mere appendage to the right, being connected to it only by a thin and narrow isthmus. CRUVEILHIER records an instance in which the left lobe was attached to the right merely by a vascular pedicle about half an inch in length; the extremity of the lobe being adherent to the upper part of the spleen. Deep and narrow grooves are occasionally seen upon the convex surface of the right lobe, running in an antero-posterior direction; they correspond with projecting fasciculi of the diaphragm, and occur generally in women who have laced tightly. This surface is also marked frequently in females with deep channels, which are formed by the pressure of the ribs, and are also the result of tight lacing. The liver is sometimes constricted in the middle from this cause, and a dense fibrous band, produced by thickening of the fibrous capsule, extends around it like a belt. The lobes are occasionally divided by deep fissures into several additional lobes; the liver in this case presents a character which is normal amongst the lower animals. In a few instances the fossa for the gall-bladder has been found excavated so deeply, as to render the fundus of the sac apparent through an opening on the upper surface of the liver; a peculiarity which is also normal amongst some of the lower tribes of animals.

Varieties of position are more frequent than those of diversity of form. During uterogestation the liver is usually pressed considerably above its ordinary plane, so as to impede more or less the action of the diaphragm, and produce embarrassed respiration. In an extremely fat subject, I once saw the diaphragm raised by the liver to a level with the fourth intercostal space, measured near to the sternum. In its natural position the thin margin of the liver scarcely reaches the border of the thorax; but in women who have laced tightly during youth, nothing is more common than to find this edge forced several inches below the base of the thorax, and altered in its form. In these cases the direction of the aspects of the organ are likewise changed; the convex

surface looks directly forwards, instead of upwards and forwards, and lies in contact with the abdominal parietes. The concave surface is directed backwards, in place of downwards and backwards, and the posterior border is forced upwards. In a sketch from the subject, now before me, the greater part of the convex surface of the organ is in contact with the abdominal parietes, and the free margin extends into the umbilical and lumbar regions. In another sketch, as a result of the enormous magnitude of the stomach from the same cause, the liver is raised almost perpendicularly, the extremity of the left lobe being in contact with the diaphragm, and the right lobe in the right iliac fossa. A part of the liver has been found in the sac of inguinal and umbilical hernia. Various peculiar appearances are observed in the liver of the fœtus, arising from arrest of development. Thus, for instance, the entire organ, or a part of it, may be situated in the chest, or from absence of development of the abdominal parietes, the liver may form part of an ex-abdominal tumor, and be uncovered excepting by the membranes of the ovum. But the most interesting and unexplained form of altered position is that in which the whole of the viscera of the body are transposed, and the liver becomes placed on the left, instead of the right side. These cases are generally perfect, and the peculiarity does not seem to interfere with the life or functions of the subject. The liver presents its natural form and size, and with the simple exception of left for right, precisely the same relations. The aorta, of course, occupies the right side, and the venæ cavæ the left, while the stomach is transferred to the right. Sir Astley Cooper has preserved the viscera of an adult who was the subject of this transposition.—Mr. Erasmus Wilson *in the Cyclopœdia of Anatomy and Physiology.—London Lancet.*

Case of Menstruatio Recidiva. By Dr. Petersen.

A healthy woman, aged seventy-nine, was seized on the 26th of March with uterine pains, these lasting a few days were terminated by a hemorrhagic discharge. On the 23d of April she was again affected in the same way, the discharge appearing on the 25th, and continuing four days. Since that period (twelve months ago) she has regularly *menstruated.*

[There are several cases on record in which the menstrual periods have been regularly continued, until seventy, eighty and ninety years of age. It has been said (Locock) that such cases are not genuine cases of menstruation, but sanguineous discharges arising from uterine disease. But we have at this moment a lady aged sixty-two under our care, who regularly menstruates without any symptom of uterine disease. A most extraordinary case, similar to that of Dr. Petersen's, is given by Velasquez, of Tarentum, of the abbess of Monvicaro, who, at the age of 100, after a severe illness, had a recurrence of the catamenia; and not only this, a new set of teeth and a fresh head of hair appeared!]—*Bibliothek for Læger. Feb.* 1840.

CHEMISTRY, MATERIA MEDICA AND PHARMACY.

On the Transformation of Calomel into Corrosive Sublimate. By M. MIALHE.

I HAVE the honor to communicate to the Society of Pharmacy, the summary of some experiments which I have made on the transformation of calomel into corrosive sublimate, experiments which I was suddenly forced to interrupt.

The point from which I started with my researches, was the following fact, reported by VOGEL. A physician prescribed for a child twelve papers, each containing five grains of sal ammoniac, five grains of sugar, and half a grain of calomel: the child having died after taking several of the powders, the apothecary was accused of having committed an error in compounding the prescription. Luckily for our colleague, the accusation which hung over him was of short duration, PETER KOFFER having quickly proven that in presence of sal ammoniac and of water, calomel is partially changed into corrosive sublimate. This fact, of which I have ascertained the exactness, has always appeared to me very remarkable, and well worthy of fixing the attention of physicians and physiologists. It would not be so, if the assertion of one of the most distinguished professors of our school were founded in fact. This professor asserts to have proven, by means of experiment, that the chemical change of protochloride of mercury into deutochloride, does not take place under the circumstances stated by the German chemist. I shall not attempt to point out whence is the source of error into which our learned colleague has fallen; I shall at present content myself with publishing the conclusions which result from my experiments.

1. The protochloride of mercury, in presence of hydrochlorate of ammonia, or of the chlorides of sodium or potassium, and of pure distilled water, is changed partly into deutochloride of mercury, and into metallic mercury. This change takes place at the temperature of the human body, and even at common temperatures, and demands but few moments of contact to be effective. It is sufficient, for example, to be convinced of this fact to allow calomel to remain a few minutes in the mouth; a mercurial taste, of sufficient intensity, will not be slow in exhibiting itself. This taste is the result of the mutual reaction of the chloride of mercury, and the alkaline chlorides in the saliva.

2. It is to the change of calomel into corrosive sublimate, and metallic mercury under the influence of sea-salt and the salts of ammonia, which we know to exist in the liquids of the alimentary canal, that we must attribute the pathological phenomena of mercurial salivation, from the administration of calomel. What proves that this is really the case, is that when the protochloride of mercury does not purge, but is retained for a long time in the digestive tube, it excites an unusual secretion from the salivary glands, and this on account of the large quantity of corrosive sublimate which is produced. The same phenomena happens after the long continued use of the protochloride of mercury, and from the same cause.

3. As the quantity of corrosive sublimate formed can only be proportional to the amount of alkaline chlorides which are contained in the viscera, those persons who eat large quantities of common salt, every thing else being equal, should be more susceptible than others, when under a mercurial course of medicine.

4. The antisyphilitic properties are communicated to it, either in whole or in part, by the sublimate and the mercury to which its chemical decomposition gives rise. It is, without doubt, the same as regards its anthelmintic virtues; it is by producing poisonous

effects on the ascarides, by means of the two agents mentioned, that the mercurial chloride relieves us from these importunate guests.

5. All that has been said of the medicinal action of calomel may likewise be predicated of the prot-iodide of mercury, which, under the same circumstances, is converted into duet-iodide.—*Journ. de Pharm.*

Mode of discovering Adulteration of Essential Oils with Alcohol. By M. Borsarelli.

M. Borsarelli introduces the essential oil into a cylindrical tube about one inch in diameter and four in length, closed at one end. The tube is to be about two-thirds filled with the oil. He then introduces small pieces of chloride of calcium, very dry and free from dust, closes the open end of the tube with a cork, and places it for four or five minutes in a water-bath heated to 100°, occasionally shaking it. The tube is then allowed to cool gradually, and if the oil contain any considerable quantity of alcohol the chloride is entirely dissolved, forming two distinct layers—the superior is the essential oil, the inferior the alcoholic solution of chloride of calcium. If the oil contain but a very small proportion of alcohol the calcareous chloride effloresces, loses its form, and becomes a white mass which adheres to the bottom of the tube. Finally, if the oil contain no alcohol, the chloride not only does not dissolve, but retains its proper form.

The same process may be employed to discover the proportion of alcohol mixed with æther, remembering, however, to use a longer tube and not to cork it too tightly.

Bulletin General de Therapeutique. 30 *Juin*, 1840.

On Paullinia, a new Medicinal Substance. By Dr. Gavrelle.

Paullinia is an extract from a plant of the same name, originally from Brazil, which extract is prepared by the Indians, and appears to possess a very energetic stimulating action. M. Gavrelle has presented a specimen to the Society of Medicine, together with a new alkali, which two chemists of Paris had separated by analysis. The extract and alkali are very bitter and exhibit great analogy with caffein.

It is probable that Paullinia, or the extract which bears this name, is extracted from several plants of the genus Paullinia, which contains thirty-one species, and is of the natural family Sapindaceæ; and Octandria, Triginia, in the artificial arrangement.

This genus has received its name from being dedicated to Simon Paulli, a physician and botanist, who was born at Rostook in 1603, and died at Copenhagen in 1680. This physician was the author of several works, and more notably of *Quadripartitum de Simplicium Medicamentorum Facultatibus*—1668, in 4to.—a work upon the abuse of tea, tobacco, &c.

Paullinia Africana is employed in Senegambia to arrest hæmorrhage, by the application of the powdered bark to the wounded parts. The bark of the *P. Asiatica* is used at Bourbon as a febrifuge; in India, the bark, the leaves, and the fruit, are employed as a decoction, prepared with four grammes of these substances, as a remedy for venereal complaints, rheumatism, gout, and cutaneous affections.

The seeds of *P. eupana* are used by the Indians of Oronoko; they mix them with cassava and water, and leave them in contact. When the liquid mixture begins to putrefy, which is denoted by becoming of a yellow color, and acquiring a bitter taste, they draw off the clear portion and mix it with the water which serves for their common drink.

P. Mexicana possesses, according to HERNANDEZ, the properties of sarsaparilla.

The seeds of *P. Pinnata* are stupifying; they answer in Brazil and the Antilles to poison fish. The leaves of Paullinia are, according to PITRON, vulnerary. The *P. serjania* also furnish seeds, which produce drunkenness.

Finally, according to MARTINS, an extract is prepared from the *P. sorbilis*, known in Brazil under the name of *guarana*, which is a medicine composed by the Indians of Para, and is made up by them in the form of lozenges, weighing one hundred and twenty-five to two hundred and fifty grammes.

The color of the guarana is brown, and in the mass is composed of lumps which are less colored interiorly than on the surface. This product is hard, very light, inodorous, and of a slightly bitter taste, without any sensible astringency. GOMEZ states, that the guarana is efficaciously used in Brazil for dysentery, and for diseases of the urinary passages produced by relaxation, four to six grammes being taken in a glass of water; according to M. BATKA, the guarana contains a vegetable alkali called guaranine.

M. GAVRELLE gives the following details on the Paullinia which he has frequently used; he states that it is the product of the *P. sorbilis*, family *Sapindaceæ*, of which the fruit bears great resemblance in color to the cocoa, its odor is *sui-generis*, its taste bitter, analogous to that of rhatany.

It is prepared by separating the seeds from the capsules, exposing them to the sun, until the integuments will separate by simple pressure; they are then reduced to a fine powder.

M. DE CHASTETUS has found in them, gum, amidon, a brownish red resinous matter, and a crystallizable matter, which possesses the chemical properties of caffein.

In Brazil and the neighboring countries, it is given as a drink mixed with cocoa, for dysentery, and as a tonic. Since it has been brought to France, M. GAVRELLE has employed it with success in chlorosis, tedious convalescence, paralysis, the looseness of phthisis, headache, &c. by which it may be seen that its use is similar to that of *guarana*.

MODE OF ADMINISTRATION.

From numerous experiments carefully made, we are led to the conclusion that the extract made with diluted alcohol, is the preparation which would most exactly represent the properties of the plant.

1. *Lozenges of the Paullinia.*—Hydro-alcoholic extract, ... 21 gram. 3 dec.
   Sugar, scented with vanilla, . . 560 "
   Make into lozenges, each containing six decigrammes.

2. *Syrup.*—Hydro-alcoholic extract, ... 10 gram.
   Syrup, ... 1000 "
   Fourteen grammes may be given in a day.

3. *Pills.*—Hydro-alcoholic extract, q. s. To be made into pills containing each a decigramme, with a sufficient quantity of powdered liquorice.

4. *Powders.*—Powder of Paullinia, ... 4 gram.
   Scented sugar, ... 16 "
   Mixed to form one dose.

5. *Tincture.*—Hydro-alcoholic extract, ... 32 gram.
   Alcohol of 22°, ... 500 "

6. *Ointment.*—Hydro-alcoholic extract, ... 8 gram.
   Lard, ... 64 "

Journ. de Chim. Med.

On Salseparine. By M. Beral.

Many pharmaceutists, among whom it is proper to cite Thubeuf, have been engaged upon salseparine. After having pointed out different methods by which this substance can be obtained, they have informed us of its chemical properties and elementary analysis.

Having devoted myself to researches with the view of determining the best method in practice for the preparation of the essence of sarsaparilla, I became assured (several years ago) that sarsaparilla, when treated with cold water, furnished a more sapid medicine, than that which results from the prolonged action of boiling water, upon the same substance. It was in consideration of this fact, that I proposed to substitute maceration for decoction, the practice of which had become almost universal. At that period I was convinced that the application of this mode of treatment for the extraction of the medicinal principles of sarsaparilla would secure great advantages for therapeutics. A great number of medical observations have since fully justified my anticipations upon this subject. It is known that many physicians have obtained effects, by the use of sarsaparilla, which have been called in question by numerous other practitioners. Such opposing experience without doubt depends upon the fact, that the first had made use of preparations of sarsaparilla prepared without heat, or at a moderate temperature, and that the others had employed such as were made by an opposite plan. In pursuing my researches upon sarsaparilla, I have ascertained that this substance contains a volatile principle, and I have been sufficiently fortunate as to be able to isolate it. Having been examined with care, this principle has been found to be pure salseparine.

This fact, which has escaped the researches of our predecessors, and which I believe to be of some importance in medicine, explains every thing, and proves, in a satisfactory manner, that heat employed for the extraction of the active parts of sarsaparilla should be banished from practice. Salseparine, possessing great medical power, every thing concurs to lead us to presume that to its presence sarsaparilla owes the properties which have given to it so exalted a reputation in the healing art.

It can be imagined, that in consequence of the volatility of salseparine the preparations of sarsaparilla which have been snbmitted to the action of heat are entirely deprived of this principle. I am certain, on the contrary, that the extract obtained by the concentration of the alcoholic tincture, by aid of the salt water bath, still contains a considerable quantity of it.

I have obtained salseparine, by distilling in a salt water bath a tincture of sarsaparilla, prepared with very dilute alcohol, and filtering the product after it has stood several hours.—*Journ. de Chimie Medicale.*

Dover's Powder Modified.

Dr. Townsend of Wheeling, has sent to Dr. Drake a note in which he recommends two new ingredients in the formula for this popular compound—nitrate of potash and the powdered root of the Sanguinaria Canadensis. Many of our brethren in the west, have long been accustomed to substitute the former of these articles for the sulphate of potash, but have not dispensed with the ipecacuanha. Here is the doctor's recipe: Opium and the powdered root of the sanguinaria, each one grain, nitrate of potash eight grains, mixed intimately by trituration. This preparation he has used, instead of the officinal, since the year 1816. The following are his pharmaceutic and practical remarks concerning it:

"It is said in our Dispensatories that the only use of the sulphate of potash is, to reduce the opium to an inpalpable powder by the hardness of its crystals. I dry the opium and then pulverize it until it all passes through a fine sieve. This enables me to use the nitrate of potash, which is a diuretic salt of long-established value, and always admissible when the Dover's powder is proper. Instead of the ipecacuanha of the old preparation, I have substituted the pulverized root of the *Sanguinaria Canadensis*, which is as good a diaphoretic as the ipecac., at the same time that it is an alternative of nearly as high powers as mercury. My Dover's powder, then, does not contain anything in the old preparation but the opium.

"I am aware that many are opposed to everything new. But let such look at the long list of diseases enumerated by Professor TULLY, in which sanguinaria has been found highly beneficial as a deobstruent or alterative; and they may be enabled to appreciate its value as a substitute for ipecacuanha in the composition of Dover's powder; and instead of a useless innovation, they may find it to be a real improvement. There is now no question that as a diaphoretic, for which Dover's powder is so frequently employed, the sanguinaria will do all that ipecacuanha is capable of doing. If, then, sanguinaria possesses other and valuable properties, not possessed by the ipecacuanha, but calculated to fill the indications for which Dover's powder is usually prescribed, it must be obvious that it will render the new preparation a better article, and consequently deserving of the attention of the medical profession.

"I might, from the facts already known of the *modus operandi* of the sanguinaria, go on to show, theoretically, that this modification of the Dover's powder is calculated to make a very superior article to the old preparation. But I am contented with using it in my own practice, and with giving this simple notice that those of the profession who think proper may avail themselves of any advantage this preparation can afford. The sanguinaria is the growth and product of our own country. This alone is by no means an unimportant consideration, inasmuch as it will assist, as far it goes, in rendering us independent of other and foreign countries for a necessary article."—*Western Journal of Medicine and Surgery.*

On the Presence of Iodine in Cod-liver Oil. By L. GMELIN.

[THE source of the therapeutic utility of this very nauseous medicine is in a great measure demonstrated by the following observations of Professor GMELIN.]

I had announced, says Professor GMELIN, that it was impossible to detect iodine in two kinds of cod-liver oil, of which one had a clear and the other a brown color; and I had left it undecided whether the iodine found by other chemists had proceeded from the iodate of soda employed in their experiments, or whether certain samples of the oil did really contain iodine. The following researches will show that the genuine oil does clearly contain iodine, and that the examples of it which I first examined were spurious.

By treating sixty grammes of pure cod-liver oil, from Bergen in Norway, by HAUSMANN'S method, I obtained by solution in alcohol a saline mass, which acted in the following manner: Its aqueous solution mixed with starch and diluted sulphuric acid, gave a violet color, which immediately disappeared on adding oil of vitriol, and was exchanged for a yellow hue. The same solution gave with starch and chlorhydric acid, a violet color, which soon disappeared on the addition of chlorate of potash. The experiment was repeated with seven hundred and fifty grammes of the same oil. The results were the same, only that in consequence of the greater quantity, the coloring of

the starch was much more intense, and was not so promptly destroyed by the oil of vitriol or the chlorate of potash. Carburet of sulphur agitated with the aqueous solution of the saline mass with the addition of diluted chlorhydric or sulphuric acid was colored violet; and when a portion of the same saline mass was thrown into a mixture of peroxyde of manganese, and moderately diluted sulphuric acid, which had been previously heated in a glass tube, the violet vapors of iodine were immediately seen rising and staining starch-paper blue.

These experiments leave no doubt of the presence of iodine in this cod-liver oil. On the authority of M. TIEDEMANN, a merchant at Bremen who has an intimate knowledge of the article, Professor GMELIN says that there are in commerce four kinds of genuine cod-liver oil. The oil is melted by exposing the livers to the sun in casks which are placed upright, and divided into three parts by moveable boards, placed one above the other. The clearest oil, and that which is most fit for medicinal purposes, is that which floats to the top; the next layers are coarser, and the lowest are quite brown. The refuse of the casks forms a deep-colored and thick oil, which is used in the manufacture of leather.

[In the Dublin Journal for July last, there is a valuable paper by Mr. DONOVAN, pointing out the great desideratum of rendering this oil palatable. He says this is effected by using a temperature in its expression not exceeding 192°.]—*Bulletin de Therapeutique. Mai*, 1840.

PATHOLOGY AND THERAPEUTICS.

On the Pain of the Back in Intermittent Fever. By Dr. Grossheim.

This paper contains the results of observations made in fifty cases of intermittent fever, for the purpose of testing the opinions of Dr. Kremer (noticed in our Fiftieth Number, Vol. VIII., p. 67,) who had stated that a painful sensation is a constant and pathognomic sign of intermittent fever, on pressure over the first dorsal vertebra and the adjacent parts of the spine, and that there is a constant relation between the severity of this symptom and of the general disease. The following are the results which Dr. Grossheim has obtained, and which seem to confirm Dr Kremer's statements, although they had been contradited, as we formerly stated, by the experience of other observers: 1. Pain on pressure on some part of the spinal column is a constant symptom of intermittent fever, except in those cases in which the ligaments of the vertebræ have become by age or disease so rigid that they will not yield to pressure. 2. There is no definite locality to this pain; it may be situated in any part of the column, but is most frequent in the middle of the dorsal portion, especially in quotidian intermittents. 3. The extent of the pain also varies considerably; one or two vertebræ only may be tender; and the pain rarely occupies the space of more than five or six; it may also be situated at distant parts, with intervals in which none is excited by pressure. 4. The intensity of the pain is equally variable. Sometimes it was so severe that the slightest touch of one of the spinous processes produced severe suffering; but sometimes violent pressure was required to detect it. Among those vertebræ that excited pain when pressed, the middle one was commonly the most sensitive; and in those above and below it, the tenderness gradually decreased. 5. The pain was more severe during the paroxysms than in the intermissions. When the severity of the fever diminished or the tendency to its returns grew less, the severity and the extent of the pain in the back also decreased; but the complete removal of the fever was not always accompanied by the entire loss of the pain, which often continued in a modified degree after the fever had ceased to return, and remained the longer the more severe it had previously been. 6. Complications of the intermittent fever did not appear to have any influence on the pain; it continued when the character of the fever was altered either for the better or for the worse, and it returned in cases of relapse.

From observing the constant existence of this symptom, the author was induced to try what would be the effect of remedies that would tend to correct the local excitement that seemed to exist. He relates very briefly five cases, in which eight or ten leeches were applied over the spine, in the situation where pressure gave the most pain. In four of these no other remedy was required: the pain ceased in a few days, and there was no recurrence of the febrile paroxysm.—*Medicinische Zeitung.*

On the Treatment of Habitual Constipation. By Dr. Burne.

The author very properly insists upon the necessity of ascertaining the peculiar disposition of any individual before determining on the propriety of any interference with his bowels. It is known to every body that cases are occasionally met with where the bowels are only evacuated every second, third, or fourth day, or even much more seldom, the health of these individuals, however, remaining sound; and on the other

hand there are abundant instances in which a relaxed state of the alimentary canal appears to be the essential condition of health. We extract the following as a very useful practical caution on the subject of idiosyncrasies in general:—

"To these peculiarities, when stated, we are too little disposed to listen; we are apt to regard them as caprices and fancies rather than true idiosyncrasies, until some untoward circumstances admonish us that they cannot be slighted or disregarded without hazard to the well-being of our patients and to the reputation of ourselves."

Under the head of *regimen*, as the first circumstance in the management of constipated bowels, early rising is recommended, and with a wise definition of what this means.

"By early rising, I would understand rather the avoiding a second sleep in the morning, than the getting up at any specified hour." "Early rising must be construed relatively." "A person awakes refreshed, light, cheerful; but if, instead of at once getting up, he dozes off to sleep again, he afterwards rises with unwillingness, and finds his head heavy, his spirits dull, and his bowels indisposed to act." "Next to early rising, and not less important, is the *habit of frequenting the closet regularly at a certain period of the day, and of strictly obeying the calls of nature.*"

The subject of diet is one of great importance in relation to constipation. The author does not think that attention proportioned to its importance has been given to the subject of aperient medicines in habitual constipation. He well remarks that the proper object is attained "not by purging the bowels, but by securing their full and free action at regular periods by medicines which not only act, but which dispose the bowels to act of themselves." This most invaluable rule cannot be too strongly impressed upon the mind of every one who contemplates the employment of aperient medicines of any kind.

"I have generally found it better," he adds, "at the commencement, to administer aperients in sufficient doses every other day, taking the chance of the bowels relieving themselves on the alternate day, until they have been brought into a more tractable state, and the influence of medicines upon the individual ascertained; after which the aperient can be so regulated in dose as to be administered daily with advantage. Perseverance on the part of the patient is absolutely necessary." "In proportion as the state of the bowels improves and becomes more tractable, so let the dose of the aperient be diminished, till at length little, and eventually none, shall be required. I have known persons obliged to commence with an ounce of infusion of senna, who have been gradually able to reduce it to a teaspoonful. So with castor oil, dinner pills and the like."

Those who suffer from piles are properly recommended so to take aperient medicines as "to have the bowels relieved in the evening, because they soon afterwards go to bed, and their sufferings, which have been aggravated by the action of the bowels, are relieved by the horizontal position: whereas, if the bowels act in the morning, the irritation arising therefrom is kept up during the day by exercise and the erect position." On this account it is recommended that sulphur, the best aperient in such cases, combined with a little magnesia, should be taken about noon. In the chapter "on the Action and Value of Aperient Medicines, administered singly or in combination," there is not much that is new, although there is that which it is useful frequently to repeat. *Jalap* is an aperient thought well of by Dr. Burne. Combined with rhubarb in the form of pills, or mixed with the confection of senna, he has found it very efficacious.

"As an occasional purgative, when the bowels are foul, as in persons on the eve of having an attack of the gout, the following jalap draught, taken fasting in the morning, clears the alimentary canal most beneficially and without distress: ℞. Pulv. jalapæ, ʒss.; vini colchici, tinct. hyoscyami, tinct. lavand. C. singulor., ʒss. Aquæ distillatæ, ℥i."

Aloes is said to be "very certain in its operation, but objectionable as a general remedy in habitual constipation, because it leaves the bowels disposed to be confined, so that no ground is gained beyond the immediate relief; and because when taken continually it rather loses its effect, and requires the dose to be augmented."

The following form of dinner pill is recommended by Dr. Burne: "℞. Aloes, ℥ j.; pulv. rhæi, ℈ ij.; pulv. ipecac., gr. v.; mellis, gr. xij.; spirit. tenuioris, q. s. M. et in pil. xx., vel xxx., vel xl., divide, ex quibus unam, duas, vel tres paulo ante prandium quotidie sumat." The compound decoction of aloes is less irritating in its operation than the aloes given in substance. The author is partial to a compound of this medicine with Epsom salts, which he speaks of as one of the most useful in habitual constipation. Assuredly it is one of the most nasty. However, as there is a variety of tastes among mankind, those who are so disposed may try this: "℞. Magnesiæ carbonatis, ℥ jss.; magnesiæ sulphatis, ℥ vj.; decocti aloes, C. ℥ ij.; aq. distillatæ, ℥ vj. M. cochlearia ij. vel iij. majora semel bisve quotidie."

Calomel is objected to altogether by Dr. Burne as an aperient, in the treatment of habitual constipation, not that he excludes it from use in certain cases of complication with torpid liver, &c.

"Castor oil," he says, "is on the whole, one of the most innocuous and certain aperients." "It acts quickly, does not produce a subsequent costiveness, and the longer it is given, the less the dose required; a great desideratum."

Senna is a purgative approved of by Dr. Burne, especially on account of its repeated doses admitting of a diminution, without a lessening of its aperient operation.

Dr. Burne thinks that the *bougie* may be had recourse to more frequently than is customary in the treatment of habitual constipation; that as action of the bowels in infants is frequently much promoted by the introduction of a small candle, a piece of soap, &c., the bougie is equally useful to adults. The author objects, and we think with justice, to the employment of clysters as a habitual remedy.

"In the first place they do not continue to relieve the bowels fully and freely for any length of time, in the next place they do not dispose the bowels to resume their natural action, but on the contrary render them more confined; in the third place they wash off the mucus from the intestine, which is followed by a degree of irritation and an unpleasant sense of heat, very similar to that which occurs after washing the hands in water simply; in the fourth place the fæces become more scybalous and hard under their use; and lastly, the individual does not feel the comfort and conviction of having had his bowels fully relieved, on which account he is often induced to resort to a second lavement on the same day. Lavements fail in completely obviating or curing habitual constipation."

As an occasional resource, however, our author does not reject them. He recommends the injection of the blandest fluids, such as *barley water, thin gruel, linseed tea, or milk and water*, but simply warm water he regards as acting injuriously upon the mucous membrane of the rectum, and he prefers the use of water of a temperature of sixty degrees, F.

In the treatment of obstructed bowels from fæces or foreign substances accumulated in the cæcum or colon, he wisely cautions against the too frequent employment of purgatives.

"If the cæcum or colon is the seat of obstruction, a tumor may generally be distinguished in the right ilio-inguinal region, or in the region of that part of the colon where the obstruction is seated, which is most generally the sigmoid flexure. The general plan of treatment should be to abstract blood, more or less, from a vein, if the symptoms call for it, and also locally; secondly, to give one or two strong doses of purgative medi-

cine, as colocynth and calomel followed by senna and sulphate of soda; but if these fail, they should be discontinued, and the effervescing saline aperients resorted to and persevered in, opium or the salts of morphia being at the same time administered to remove spasm and assuage pain. The first efforts not having been successful, time should be allowed; and fomentation and baths and clysters be employed as far as the patient's strength will admit. Treated on this plan, patients will survive and do well after many days (*ten* I have known) of actual obstruction with vomiting and hiccup: but if violent measures are persisted in, they will too often sink under the treatment rather than the disease."

When the obstruction is in the sigmoid flexure of the colon, the injection of fluids through a long gum elastic tube, as recommended by O'Beirne, is the most effectual mode of overcoming it. When in the rectum, mechanical means should be employed, "and the sign which in cases of obstruction should excite suspicion that the cause is seated in the rectum and lead to an examination of that gut, is tenesmus." This fact, although familiar to all practitioners of experience, is often overlooked by young practitioners.—*British and Foreign Medical Review.*

On the Danger of applying Leeches which have been previously used. By M. Puche.

The transmission of virus by the fangs of leeches is an important question and worthy of examination. M. Puche, physician to the hospital of Midi, has treated a patient in his wards, who affords a convincing proof of the danger of employing leeches which have been applied before. A messenger, æt. 24, was admitted into the hospital with urethritis of four months' standing, which had been recently complicated by acute inflammation of the epididymis. The epididymitis was the consequence of excessive labor, not of arrested discharge. Many applications of leeches were made to the hypogastric region for its removal. Five of the leeches applied were purchased at a low price by the nurse. Their bites inflamed, and took the aspect of Hunterian chancres. Now these syphilitic ulcers were too recent to have arisen from the same impure connexion that produced the gonorrhœa; but as it was possible that they were occasioned by the gonorrhœal matter coming into contact with the leech-bites, M. Puche, to satisfy himself, inoculated one part with the whitish discharge, and another part with the pus of the ulcers on the 28th of February, 1840. On the 4th of March the inoculation of the urethral matter had produced nothing while that of the chancres had given an ecthymous pustule, which had the regular development of syphilitic pustules, and terminated by an indurated and coppery cicatrix. It is argued that the ulcers proceeded from the leech-bites, (the leeches had certainly been employed on a syphilitic patient,) and that they had conveyed the infection from one patient to the other. The possibility of this transmission may be granted; but other experiments are necessary to prove it, and to determine whether the leeches are not destroyed by the virulent principle they imbibe; whether the poison is destroyed by them, and if so at what period do they become inocuous.—*Bulletin General de Therapeutique. Juillet* 30, 1840.

Peritonitis from Injections into the Uterus, the Injections passing through the Fallopian Tubes into the Cavity of the Peritoneum. By M. Hourmann.

A patient who was in the hospital of Loursine, under M. Hourmann, laboring under lucorrhœa, was ordered an injection into the uterine cavity, it was administered by

means of a clyster pump, and at the first stroke of the piston, the patient uttered a sharp cry, and pressed the hand strongly on the left iliac region. Symptoms of metro-peritonitis came on and the most energetic treatment was adopted. It being an important practical point to determine whether peritonitis was likely to ensue from uterine injections, several novel experiments were made in the hospital of Loursine to determine whether liquids would pass along the Fallopian tubes into the cavity of the peritoneum; and it was found that injections with an arterial syringe passed into the tubes. Abundant injections by means of syringes double the size of urethral syringes passed into the tubes, preceded by a certain quantity of air. In some few cases small quantities passed quite through the tubes. As this matter is to undergo further examination, we shall defer further notice of it at present.—*Gazette Medicale. Juillet* 11, 1840.

New Remedy for Tetanus and other Convulsive Disorders. By W. B. O'Shaughnessy, M.D., Calcutta.

The narcotic and intoxicating effects of hemp are popularly known in various parts of Asia, Africa and America, where it is extensively employed in a multitude of affections; but in Western Europe the use of hemp is unknown, either as a stimulant or as a remedy, probably because the European hemp does not contain any of the resinous matter upon which its therapeutical properties depend. In warm climates and during certain seasons, a resinous juice exudes and concretes on the leaves, slender stems, and flowers of the hemp. This resin has a fragrant narcotic odor; bitter, acrid taste; and, when pure, is of a blackish-grey color. It is very soluble in alcohol, or fixed oils, and is insoluble in acids.

Having determined by experiments on carnivorous animals, that the remedy might be administered with safety to the human subject, Dr. O'Shaughnessy proceeded to try its effects in several convulsive diseases. The resinous *extract* which he employed, was obtained by boiling the tops of the dried hemp plant in spirit, (sp. gr. 835,) until the resin was dissolved, and then evaporating the tincture to dryness. The tincture of hemp was prepared by dissolving three grains of this extract in one drachm of proof spirit. The doses vary according to the disease for the cure of which the remedy may be employed. In cholera, Dr. O'Shaughnessy gives ten drops of the tincture every half hour, until the vomiting and purging are allayed. In cases of tetanus, a drachm of the tincture every half hour, until the paroxysms cease, or catalepsy is induced. In hydrophobia, ten or twenty grains of the extract to be chewed by the patient, and repeated according to their effect.

The diseases for which the hemp resin has been administered by Dr. O'Shaughnessy, are rheumatism, cholera, hydrophobia and tetanus. In the two former complaints the trials hitherto made, do not lead to any determinate conclusion. In one undoubted case of hydrophobia, the effects of the resin are thus graphically described by Dr. O'Shaughnessy:

"By his own desire water was brought in a metallic vessel, which he grasped and brought near his lips: never can I forget the indescribable horrors of the paroxysm which ensued. It abated in about three minutes, and morbid thirst still goading the unhappy man, he besought his servant to apply a moistened cloth to his lips. Intelligent and brave, he determinately awaited the contact of the cloth, and for a few seconds, though in appalling agony, permitted some drops to trickle on his tongue; but then ensued a second struggle, which, with a due share of the callousness of my profession, I could not stand by to contemplate. Two grains of hemp resin in a soft pillular mass were

ordered every hour; after the third dose he stated that he felt commencing intoxication; he now chattered cheerfully on his case, and displayed great intelligence and experience in the treatment of the very disease with which he was visited. He talked calmly of drinking, but said it was in vain to try, but he could suck an orange; this was brought to him, and he succeeded in swallowing the juice without any difficulty. The hemp was continued till the sixth dose, when he fell asleep, and had some hours' rest. Early the ensuing morning, however, Mr. SIDDONS, my assistant, was called up to him, and found him in a state of tumultuous agony and excitement. The hemp was again repeated, and again by the third dose, the cheering alleviation of the previous day was witnessed. He ate a piece of sugar-cane, and again swallowed the juice; he partook freely of some moistened rice, and permitted a purgative enema to be administered. His pulse was nearly natural, the skin natural in every respect. His countenance was happy.

"Four days thus passed away, the doses of hemp being continued. When he fell asleep, on waking the paroxysms returned, but were again almost immediately assuaged, as at first. Meanwhile purgative enemata were employed, and he partook freely of solid food, and once drank water without the least suffering. But about 3, P. M. of the fifth day, he sunk into profound stupor, the breathing slightly stertorous; in this state he continued, and without further struggle, death terminated his sufferings at 4, A. M. on the 27th of November."

In several cases of traumatic tetanus the power of the remedy was triumphantly exhibited. In the first case, symptoms of tetanus supervened on the employment of a moxa, for the cure of dysentery. Two days after their appearance the case was considered hopeless, and the extract of hemp was administered, in the dose of two or three grains, every third, and then every second hour. The spasms were speedily mitigated, and ceased altogether in eleven days. The dysentery proved fatal, however, seventeen days afterwards. The other cases are thus alluded to by Dr. O'SHAUGHNESSY:

"The *second case* was that of CHUNOO SYCE, in whom tetanus supervened on the 11th December, after an injury from the kick of a horse. After an ineffectual trial of turpentine and castor oil in large doses, two-grain doses of hemp resin were given on the 26th of December. He consumed in all one hundred and thirty-four grains of the resin, and left the hospital cured, on the 28th of December.

"*Third Case.*—HUROO, a female, ætat. 25, admitted into the Native Hospital December 16th, had tetanus for the three previous days, the sequel of a cut on the left elbow, received a fortnight before. Symptoms violent on admission. Turpentine and castor oil given repeatedly without effect; on the 16th and 17th, three grains of hemp resin were given at bed-time. On the morning of the 18th she was found in a state of complete catalepsy, and remained so until evening, when she became sensible, and a tetanic paroxysm recurred. Hemp resumed, and continued in two-grain doses every fourth hour. From this time till the third hour, tetanic symptoms returned. She subsequently took a grain twice daily, till the 8th of February, when she left the hospital apparently quite well.

"Mr. O'BRIEN has since used the hemp resin in five cases, of which four were admitted in a perfectly hopeless state. He employed the remedy in *ten-grain doses* dissolved in spirit. The effect he describes as almost immediate relaxation of the muscles, and interruption of the convulsive tendency. Of Mr. O'BRIEN's seven cases, four have recovered.

"In the Police Hospital of Calcutta the late Dr. BAIN has used the remedy in three cases of traumatic tetanus; of these, one has died and two recovered.

"A very remarkable case has recently occurred in the practice of my cousin, Mr. RICHARD O'SHAUGHNESSY. The patient was a Jew, ætat. 30, attacked with tetanus

during the progress of a sloughing sore of the scrotum, the sequel of a neglected hydrocele. Three grain doses were used every second hour, with the effect of inducing intoxication and suspending the symptoms. The patient has recovered perfectly, and now enjoys excellent health."

"The preceding facts (says Dr. O'Shaughnessy) seem unequivocally to show, that when given boldly, and in large doses, the resin of hemp is capable of arresting effectually the progress of this formidable disease, and, in a large proportion of cases, of effecting a perfect cure." We trust that some of our hospital physicians will, without delay, procure the remedy which Dr. O'Shaughnessy has thus favorably introduced, and determine how far it may sustain its reputation as a "powerful anti-convulsive" in this country.—*British and Foreign Medical Review.*

Tincture of Muriate of Iron in Diabetes Mellitus.

Mary Wild, ætat. 56, of Ashton, had been subject to a diabetic discharge for eight months; her general health had for some time been very precarious from the cessation of the menstrual discharge. About seven pounds and a half of urine in twenty-four hours. In this case the saccharine matter was not so abundant as in former cases. I gave the tinct. fer. mer. mixt. for six days, when a slight abatement was observable; but, on the 12th day, the quantity was more than at the commencement. On the 15th, the abatement again showed itself; and from this time to the end of four weeks kept constantly decreasing. At this time pleuritic symptoms called for a cessation of these remedies and the substitution of others, during which time a slight increase of urine came on; but on going on with the old medicine the improvement returned. She finally ceased taking medicine at the end of eight weeks, feeling her health quite restored, and has had no return since. The date of this case was March, 1840.—*Lancet.*

Small Doses of Sulphate of Copper in Hooping Cough. By P. H. Chavasse.

I wish to call the attention of my medical brethren through your medium to the great value of *small* doses of sulphate of copper in hooping cough. I have used it in numerous cases, and with the happiest result. The form I generally order is the following: ℞. Sulphate of copper, ½ gr.; syrup of poppies, ℥ ss.; aniseed water, ℥ iss. M. One or two teaspoonsful (according to the age of the child) to be taken every four hours.

Lancet.

Successful treatment of Dropsy of the Synovial Membranes by Tartar Emetic. By M. Gimelle.

M. Gimelle has found the administration of tartar emetic in large doses very efficacious in curing dropsy of the synovial membranes; causing complete absorption of the fluid, with abatement of all inflammatory symptoms if any exist. Twenty-seven cases of dropsy of the joints have been treated successfully by him. He, without any previous treatment, commenced by giving four grains of tartar emetic in the twenty-four hours, and increased the dose by two grains every day till from eighteen to twenty grains were taken daily. As soon as toleration of the medicine was established, the fluid

began to be absorbed, and the cure was in general complete in from eight to sixteen days.

In only five of these cases was vomiting excited by the medicine, in two cases for three days. In eight cases it produced alvine evacuations; but its most general and constant effects were diminution of the strength and quickness of the pulse, weakness of the voice, abundant nocturnal perspirations, and the appearance of a dark circle around the eyes. In almost every case the appetite remained unimpaired. M. GIMELLE regards this plan of treatment as the most successful ever yet proposed for the treatment of dropsy of the synovial membranes.—*Ed. Med. and Surg. Jour.—from Bulletin de l' Acadamie Royale de Medicine. July* 4, 1840.

SURGERY.

Mr. French's Mode of Operating for Strabismus. By D. O. Edwards.

The followiug is the abridged fashion in which I went through the process in four cases: The patient was seated on a chair in a moderate light, and the assistant standing behind placed one hand over the sound eye, and with the other hand raised the upper lid of the affected organ. Upon the patient's turning the eye outwards, I snipped the conjunctiva over the under edge of the internal rectus, and introduced a curved probe under the muscle. By depressing the handle of the probe, the point was brought forward, and projected a little above the upper edge of the muscle; a second snip with the scissors enabled the point to emerge; and, finally, the muscle was divided by the scissors upon the probe.

The operation thus simplified consists of but three steps:

1. The nipping of the conjunctiva.
2. The introduction of the probe under the muscle.
3. The division of the muscle upon the probe.

From a perusal of this description it is evident that various preliminary and subordinate arrangements, which have hitherto been considered essential to the operation, are perfectly useless; no bandaging of the sound eye; no speculum for the upper palpebra, and no tenter-hook of any form is employed.

The probe which I have alluded to, consists of two stems placed parallel, at a distance sufficient for the point of the scissors to pass between.—*Lancet.*

Cure of Squinting. By R. T. Lightfoot, Surgeon, Newcastle.

Case I.—Susanna Forster, aged 10. Her parents state that her eyes were perfectly straight until eleven months ago, when she suffered from a mild attack of measles; during or immediately after which, she was observed to squint with her left eye; since then it has gradually increased. At present, when desired to look at an object placed directly before her, one-third of the cornea is observed to be concealed behind the inner canthus. When the right eye is closed, the movements of the left are quite normal, and its power of vision equal to that of the other side. On the 22d of June, with the assistance of my friends, Drs. Charlton and Elliot, I performed the operation in the following manner: The patient being seated, a cloth was passed round her body, and fastened behind the chair; a bandage was placed over the right eye, and her head rested against Dr. Charlton's breast, who also elevated the upper eyelid with his fingers, whilst Dr. Elliot depressed the lower one. Desiring the patient to evert the eye as much as possible, I passed a small hook through the conjunctiva, about a line external to the caruncula, and gave it to one of my assistants, desiring him to evert the eye, and stretch the conjunctiva. This membrane was then divided between the caruncula and hook to the extent of half an inch from above downwards, by means of a triangular cornea knife. The hæmorrhage was trifling, but the loose sub-conjunctival cellular tissue near the incision being infiltrated with blood, presented almost a muscular appearance, and rather retarded the introduction of a bent silver probe, beneath the tendon of the internal rectus muscle. After a little delay it was effected, and the tendon being brought

into view was divided with a sharp-pointed, curved bistoury. The eye instantly became straight. She could now evert it to any extent, but could not invert it in the same degree. A small portion of conjunctiva, which prolapsed between the eyelids, was replaced with a probe, and the eye covered with a fold of lint, wetted with cold water. The application of cold water to be continued during the day—to have six leeches applied to the lower eyelid, and to take a purgative powder at bed-time.

30. The movements of the two eyes are quite parallel: all that now remains is a slight ecchymosis, and prominence of the newly cicatrized conjunctiva.

Case II.—John C. Preston, aged 23, has squinted with his left eye since the age of 5 or 6 years; he cannot attribute it to any cause, except having acquired the habit by imitation from one of his companions. At present the eye is so far distorted, that one-fourth of the cornea is concealed by the inner canthus. On closing the sound eye, the left can be everted to about half its normal extent. Its sentient power is much impaired, being unable to distinguish any but the largest print.

June 29. With the assistance of my friends, Dr. Charlton and Mr. Snowden, I divided the tendon of the internal rectus, in the same manner as in the case of Forster. The hæmorrhage was trifling, and division of the tendon easily effected. The eye instantly resumed its natural position. Lint soaked with water to be constantly applied to the eye during the day, and to have a dose of castor oil at bed-time.

July 6. Mr. P. resumed business to-day; a slight redness and prominence where the conjunctiva was divided, being all that now remains, and that is only observed when the eyelids are separated, or the eye considerably everted.

Case III. Hephzibah M'Pherson, aged 21, has squinted with her right eye since the age of four years, when she acquired the habit without any known cause. At present, nearly one-third of the cornea is concealed by the inner canthus. On covering the sound eye, she can evert the other so far as to bring it straight: its sensibility is much impaired, being unable to distinguish the largest print.

July 10. I divided the tendon of the internal rectus, with the assistance of my friends, Dr. Charlton and Mr. Smith. Immediately the eye resumed its natural position, and moved parallel to the other. Cold water to be applied all day, and the aperient powder to be taken at bed-time.

14. The patient resumed her occupation to day; all that is now observed being a slight redness and thickening where the conjunctiva was divided.—*Lancet.*

On the Operation for Strabismus. By Professor Dieffenbach.

Since my first communication on this operation it has had such a general reception and has acquired such an importance as I did not at that time anticipate. Upwards of three hundred cases have been operated on by me within a few months, and both in Berlin and in other places my proceeding has been frequently imitated. I propose to give here a short general view of the results of my observations.

The youngest individuals in whom I have undertaken the division of the shortened muscle of the eye were five years old; the oldest were upwards of forty.

Sometimes one, sometimes both eyes squinted, and the operation had generally the same favorable result in both cases. When both eyes were affected I either operated first on that which squinted most, and when that was quite well on the other, or else on both at the same time.

Squinting inwards, from shortening of the rectus internus, was by far most frequent. Sometimes the trochlearis muscle was also shortened, so that it was necessary to divide

it as well as the rectus. In the whole number of those I operated on, there were only a few who squinted outwards, and still fewer in whom the eye was directed upwards or upwards and inwards. I found no eyes at all that squinted downwards.

Strabismus upwards was sometimes complicated with blepharoptosis. The division of the rectus superior not only cured the squinting, but the ptosis gradually diminished after it.

Strabismus outwards or inwards was often complicated with nystagmus bulbi. After the division of the external or internal rectus not only did the squinting cease but in general the nystagmus also. In other cases, however, the latter was persistent, and did not decrease till after the division of the rectus superior, or obliquus superior, or rectus externus.

When cataract and strabismus coexisted, the operations for both were done at the same time, and the result was in every case favorable to both.

In most of the patients the strabismus had commenced in very early childhood, after ophthalmia neonatorum, scrofulous inflammation of the eyes with ulcers on the cornea, or after acute exanthemata, &c. In many there were cicatrices on the cornea or cataracta centralis. In cases of the former kind, in which hitherto artificial pupils would have been made, the operation was attended by success and considerable improvement of the sight.

All those who had strabismus of only one eye saw more weakly with it than with the other; in those who squinted with both eyes that which was turned least was usually the stronger. The weakness of the one eye had been observed by only a few of the patients; they had naturally looked only with the better eye and the other had been unemployed. The operation completely cured the weakness of sight; some who had actually amaurotic amblyopia could see clearly directly after it was performed.

Some of the patients, previous to the operation, often saw double; this defect continued for some time after it and then gradually ceased. Some others who had never seen double before did so immediately after the operation. These had been in the habit of looking only with their strong eye while the other had been unused. The improved position of the latter compelled it to see; but the double vision was subsequently lost.

Some who were operated on did not see so well immediately after as before the operation; but after some exercise this weakness of vision ceased, and they could then see quite clearly. The cause of this was that when the eye was put in its normal position a point of the retina which was before unexercised was now brought into play and required some practice before it could fully discharge its functions.

Operation.—That for strabismus convergens is here taken as the type. The operator always stands on the right side of the patient whether he be operating on the right or on the left eye. The patient sits on a stool, and an assistant standing behind him draws up the upper eyelid with a Pellier's hook. A second assistant draws down the lower eyelid with a double hook which is set in a handle and of which the teeth are connected by a transverse piece. He kneels down before the patient so as not to be in the way.

The operator then puts a fine hook into the conjuctiva at the inner angle of the eye just where it is passing from the palpebræ to the bulb, passes it superficially through it, and gives it to a third assistant who stands on the left side of the patient. The operator next passes a second hook in the same way through the conjunctiva about a line and a half from the first. He and his assistant then both at the same time draw their hooks a little up, so as to raise a fold of the conjunctiva, and at the same time pull the bulb somewhat outwards. The fold is then divided with a pair of curved eye-scissors; and this cut usually at once exposes the tendon and the anterior part of the muscle. A couple of cuts with the scissors then expose the outer surface of the muscle; a rather

blunt hook is passed under its tendon, and the two sharp hooks that held the conjunctiva are now removed; the eye is held completely in the power of the blunt hook, and is to be drawn by it from out the internal angle of the orbit. A flat probe is then pushed under the muscle; and the loose connexion by cellular tissue between it and the eye is broken up. The division of the muscle is made by the scissors already mentioned, either, first, through the tendon in front of the hook; or, second, behind the hook at the beginning of the muscular substance; or, third, some lines deeper back.

When the tendon is divided, nothing of it remains on the eye, and the muscle commonly retracts a line backwards. When the muscle itself is divided at its anterior part or further back, its posterior portion retracts, and the anterior, which remains connected with the bulb turns forward like a loose flap, which according to circumstances, may be removed by the scissors or pushed back into the wound if it is thought desirable that it should unite again with the posterior portion.

In practised hands the whole operation seldom lasts more than a minute; and it is done almost without pain. When finished the eye is cleaned with cold water and a soft sponge. The after-treatment consists of cold lotions, and very great abstinence from food and strong drinks. The patient should be kept in a darkened room. In most cases the wound heals very quickly, and after a few weeks no traces of the operation remain, and the eye stands in its normal position.

The operation for internal strabismus is by far the most easy; the division of the obliquus superior, for squinting upwards and inwards is more difficult; that of the rectus externus for strabismus divergens is more difficult still; and the most difficult of all is the division of the rectus superior for squinting upwards. With respect to the manipulations of these operations they are just the same as those for strabismus convergens.

Remarks on the operation.—The fixing of the upper and lower eyelids with the elevator and the hook so as to expose the whole of the anterior surface of the globe is indispensable, for neither the will of the patient nor the separation of the lids by the finger can do this effectually,

The fixing of the globe can be accomplished only by fine hooks carried superficially through the conjunctiva; the seizing and elevation of the fold of conjunctiva by forceps sounds more gentle than to do it with a sharp hook, but it is in reality far more painful, more injurious, and more insecure; the fold raised up by the forceps easily tears or slips from their grasp, and if the forceps are made with hooks they wound as well as pinch the membrane. Two hooks must be employed to make the fold tense enough.

The great number of operations that I have performed has given me opportunity of observing the phenomena that ensue subsequently to them and their after consequences. The question here is only of internal strabismus, but any surgeon will easily supply the necessary modifications for the operations in the other varieties. In the first case the eye after the division of the muscle goes into its normal position. In the second it remains in some degree squinting. In the third it turns outwards.

In my first operations the position of the eye after the division of the muscle was left to chance, but I gradually succeeded in getting it into my own power to determine it. If there be the slightest degree of convergent strabismus, only a very small opening should be made in the conjunctiva, and the tendon only divided close to the eye without separating the muscle from the globe. In this case the eye at first almost maintains its previous position, but after some weeks it becomes straight. If the conjunctiva be more extensively divided, and if the under surface of the muscle be separated from the globe with a probe and then cut across, the squinting is at once nearly or completely removed. If the conjunctiva be divided over a greater arc, and towards the back of the globe, if the cellular tissue be extensively separated and the muscle be detached far

back and divided at its middle, then the eye, even in cases in which the whole cornea was before hidden in the internal angle, stands quite straight after the operation.

Hundreds of those whom I have cured have been seen by our own and by foreign medical men, and it was often impossible to distinguish the eye that had squinted from the other.

In some who still squinted slightly after the operation the position of the eye was made perfectly normal by tying up the sound eye and rolling the globe forcibly outwards so as to stretch the newly formed uniting substance. In others of those whom I first operated on, in whom I had not adopted this after measure, I repeated the operation; and I found that in fourteen days after its first division the muscle was again intimately united with the globe, and that with the exception of a slight thickening and induration of this part there was no indication of a previous operation.

Immediately after the operation the eye can be moved inwards by the superior oblique, and at a later period by the divided muscle which has again united with the globe. In several persons in whom the muscle was divided deeper in the orbit the eye turned outwards, some weeks after the operation, so that there was actually an external strabismus. If the divergence was but slight it was often sufficient to snip *(betupfen)* the conjunctiva at the lower angle, so as by the shortening of the membrane that was thus produced, to bring the eye into the middle. But if the divergence was greater I then divided the external rectus and the eye became straight again, especially when I at the same time removed a fold of conjunctiva from the internal angle, for the cicatrix that then followed tended to draw the globe inwards. If the eye, notwithstanding the division of the external rectus, still remained turned outwards, I then, after dividing and separating that muscle, tied a thread as fine as a hair upon its tendon, and with this pulled the eye forcibly inwards. The end of the thread was then drawn tightly across the bridge of the nose and fastened to a piece of good adhesive plaster, which was stuck upon the opposite side. The result for the most part surpassed my expectations.—*Casper's Wochenschrift. July* 4, 1840.

On the Operation for Strabismus. Claims of M. Jules Guerin.

In a letter on the treatment of strabismus, addressed to the Academy of Sciences, 29th June, 1840, M. Guerin says: "I have the honor to inform the Academy that I have four times practised with success the division of the muscles of the eye, in cases of convergent strabismus. I shall briefly state the principles which have directed me in this operation. I had long and publicly professed that strabismus was the result of the contraction of the muscles of the eye; and the varieties of this deformity the necessary consequence of different degrees of contraction. It is in fact an application of my general theory of articular deformities in the skeleton, and caused one of the most eminent members of the academy to designate strabismus as *club-foot of the eye.*"

M. Guerin goes on to state that in his clinical lectures he frequently proposed to extend division of the muscles to deviations of the eye in the same manner that he had applied it to deformities of similar origin, and that eighteen months since he offered to cure Dr. Pinel Grandchamp of strabismus by means of this operation. He proceeds: "As for the operation itself it differs in some respects from that of M. Dieffenbach. One of the reasons which induced me to pause before attempting his method was the fear of inflammation occurring in a wound exposed to the air upon a delicate organ, and so near the cerebrum. These accidents I feel certain of avoiding by the following method:

"In place of dividing layer after layer, I detach the portion of ocular conjunctiva, which covers the muscles from the sclerotic, and raise it with broad-nibbed forceps until the muscle is exposed. This being divided with curved scissors, I restore the detached portion of conjunctiva to its place; this by closing the wound prevents the access of air, and obtains all the advantages of a sub-cutaneous wound. Experience has confirmed my preconceived notions of the theory; in the four operations I have performed there has been no sign of suppurative inflammation.

"The result of these operations has been very satisfactory; but not so immediately advantageous as M. DIEFFENBACH observed. In one instance there was a complete and instantaneous restoration of the natural position of the eye, in the others only an amelioration. This circumstance appears to be a natural consequence of the true origin of strabismus. At one time the deviation of sight is originally muscular, and the result of spasmodic contraction in a single muscle; at another time the contraction is consecutive or even primitive; but it has simultaneously affected many muscles."

L'Experience. Juillet 9, 1840.

On the Cure of Strabismus. By Dr. F. A. VON AMMON.

[IN the great number of the papers written on this subject, it is scarcely to be expected that more than two or three remarks on each should be worth abstracting. In the present article by the editor of the Monatsschrift, the following passages are worthy the attention of our readers:]

A principal point is the determination of the indications for the operation; and I think it the more important, because the whole history of the affection, notwithstanding the works of many excellent physiologists, is extremely obscure and uncertain. Nor could this be otherwise when the anormal position of the eye is in different cases so varied, and so often the consequence of diseased conditions of the brain, the abdominal nervous system and of the globe itself. Here is a wide range for the production of the disease, independently of the cases which are produced by diseases of the orbit. No rational physician will expect to cure such a strabismus by myotomy; and the operation can be applicable only when the malposition of the eye is primarily dependent on the muscle, i. e. when there is a shortening of one of the muscles of the eye, which holds the eye to one side, and limits its motion towards the other; but even here more than one condition must be laid down.

But unfortunately the necessary basis of the operation, pathological investigation, is at present absolutely and entirely deficient, no one has yet clearly convinced himself on the dead body that a shortened state of the muscle exists in squinting. The operation, however, may itself be made the means of investigating the nature of the disease; and here again, as has been the case with club-foot and wry-neck, surgery may be made the assistant of pathology.

With regard to the true orthopædics of the eye, i. e. its acquiring the right position after the operation, this consists in the constant endeavor and active exertion of the patient to give his eye the proper direction. A club-foot or a wry-neck would just as soon return to its right position after division of the tendons without assistance as a squinting-eye will. A good method of insuring success is to tie up the sound eye; the eye that has been operated on then always moves to the centre of the orbit, and the longer it is kept there the more likely it is to remain. In few cases will this or some similar measure be unnecessary.

The author also suggests the propriety of endeavoring to make a subcutaneous or

rather a subconjunctival division of the muscle, which he believes would avoid all the inconveniences to which the present method is subject. He has performed it on the dead subject and on animals; and has no doubt it may be applied to actual cases of strabismus.—*Monatsschrift fur Medicin, &c. June*, 1840.

Malformation of the Anus.

To the Editor of the Boston Medical and Surgical Journal.

Dear Sir,—I send you the following case, which, if you think of interest sufficient, you are at liberty to publish in your valuable Journal.

On the 30th of October, 1838, Elizur Graves, of Solon, in this county, consulted me respecting a child of his, æt. three months, for a malformation of the anus, which was congenital. It was not discovered until some days after birth, when, after repeated exhibition of cathartic medicines, no evacuation taking place, the nurse, on attempting to exhibit an enema found no opening. A practitioner was consulted, who gave an unfavorable prognosis as to any remedy, and the child was considered as among the incurable. But as it continued to live, and even to thrive, at the end of three months the parents brought it to me. On examination, there was no opening into the rectum, but a little posterior to the natural situation of the anus a slight projection of the skin was observed, which, on examination, gave an obscure feel of fluctuation. The skin was also slightly inflamed. I advised an opening into this point, which the parents readily assented to, and it was accordingly made, and about a tablespoonful of pus discharged, but no fæces as was expected. I next examined the opening with a probe, but could find no communication with the bowel. I next passed a sharp-pointed narrow bistoury, with the edge towards the sacrum, in the direction of the rectum, the distance of three inches. It was withdrawn, and the point found smeared with fæces. Considerable hæmorrhage followed. I next introduced an elastic gum catheter, of small size, using different sizes until the largest ones could be passed without difficulty. Some warm water was now injected through the tube, which brought away a quantity of liquid fæces. I directed that the tube should be passed twice a-day and an injection thrown in each time, and in the intervals a wax bougie of large size worn constantly. The next day after the operation, a pint of fæces escaped at one time, and the same amount continued to escape daily for a week. Before the operation the child had fits of crying and straining, the abdomen was also much enlarged and very hard. These ceased at the end of a week. The child was also troubled with vomitings before the operation, which now no longer were present. The bougie was persevered in for four weeks, at the end of which it was discontinued, and the child improved very fast in flesh; the evacuations from the bowels became natural, and it has continued well ever since. The control over the bowels is as perfect and natural as in any healthy child.

There are some features in this case which make it more than ordinarily interesting. In the first place, the length of time which elapsed before the operation, and the question how long this state might have continued without serious consequences to the life of the child; and second, whether nature would have finally effected a cure by suppuration or ulceration. These are questions which may with propriety be asked. As to the length of time which elapsed, the child was nearly as large as ordinary children of that age, and was not afflicted with vomiting or crying more than many are who are considered healthy. The process of nutrition and chylification went on regularly, and the fæces were formed as in health. The large intestines must have become much dilated to have contained the quantity which had accumulated in them.

Whether nature would have accomplished an opening for the contents of the rectum, is not so easily answered. I am convinced that the small cavity containing pus did not open into the rectum, and also that the termination of the bowel was much higher than that of the abscess. Yet it is possible that the ulcerative process might have finally done what was accomplished by art. A. B. SHIPMAN, M.D.

Cortlandville, N. Y., Oct. 1840. *Boston Med. and Surg. Journal.*

Noli Me Tangere cured by Chloride of Zinc.

JOHN TOWNLEY, admitted to the Cheltenham General Hospital, December 16, 1839; ulceration affecting the left nostril and septem. Chloride of zinc one part, sulphate of lime two parts; mix. This was applied twice, a poultice being used to assist the separation of the sloughs. He also had the following medicine:—Blue pill, compound extract of colocynth, each ℥ ss.; croton oil, two drops. Make into twelve pills, and let two be taken every night.

After the sloughs had separated, the parts completely healed; a considerable thickening and redness remained about the upper lip and nostrils; he was otherwise completely well; discharged. He was recommended a lotion with prussic acid and liq. plumbi, and to keep his bowels regular with some aperient medicine. He continues well at this time, June 30.

A case of long-standing phagedenic ulcer on the arm, which had resisted every means of cure that had been tried, completely healed after two applications of the chloride of zinc and gypsum, applied as in the first-mentioned case.—*Lancet.*

Melanotic Tumor over the Parotid Gland.

H. D., aged forty, was admitted to the University College Hospital, July 8, under Mr. LISTON. She has had a small mole or mark on the left cheek since birth. It began to increase about two years ago, and to become black and discolored. It increased in size, at first slowly, but afterwards more rapidly. It did not give her any pain. On presenting herself at the hospital there is found to be a large tumor, of a black color and somewhat elastic, situated over the parotid gland. The tumor is rough externally, moveable, and apparently not deeply attached. Mr. LISTON considered it a simple melanotic tumor of the skin, and recommended its removal.

10th. To-day the tumor was removed in the following manner:—An elliptical incision was made in the skin on each side of the swelling, which, with the skin, was removed. The tumor did not extend beyond the subcutaneous cellular tissue, where it was enclosed in a cyst. No attempts were made to bring the wound together. Cold water was applied for two or three hours, and then warm water dressing. No irritation followed the operation, and in a few days the woman was discharged well.

Boston Med. and Surg. Jour.

Forty-two Tendons divided at one Sitting.

A MOST extraordinary operation was performed the other day by Dr. JULES GUERIN, on a young gentleman twenty-two years of age, who had all his muscles and tendons so dreadfully contracted that his knees were drawn up to his chin, his arms contorted, and

his body the picture of the most hideous deformity. The doctor determined, after studying the case, to operate on him by the sub-cutaneous section of his muscles; and a large party of the most eminent medical men of the capital, as well as some from Russia and Germany, were invited to be present at the operation. The patient, it may be at once premised, bore the whole with the greatest fortitude.

Muscles and Tendons cut at the Elbow.—The two brachial biceps, 2; the round pronators, 2; the two radial arteriors, 2; the two common superficial inflectors, 2; the two small palmaris, 2.

In the Forearm.—The isolated tendons of the two cubital anteriors, 2; the isolated tendons of the large and small palmaris, 4; the isolated tendons of the two large abductors of the thumb, 2.

At the Knees.—The sutorial, 2; the two crural biceps, 2; the two demi-membranal, 2; the two demi-tendinous, 2; the two right internals, 2; the fascia lata, 1; the lateral external ligaments, 2.

At the feet.—The two tendons Achilles, 2; the two anterior leg-muscles, 2; the two common extensors, 2; the two extensors of the great toe, 2; the two anterior peronial, 2.

In the Body.—The grand pectoral muscle, 1.—Total, 42.

The operation was conducted throughout with the greatest *sang froid* and courage; nothing but the *cric, cric* of the bistoury was heard, or a faint sigh from the patient. When the poor fellow was thus *untied*, his limbs were stretched out, and his course of clinical treatment commenced. In the evening he slept soundly, had no fever, and is now nearly recovered from his wounds.—*French Paper.*

New method for the radical cure of Varix, and especially of Varicocele. By M. Ricord.

After pointing out the errors of believing that varicocele affects only persons of twenty or thirty years old, and imagining it to be a common consequence of gonorrhœa or epididymitis, whereas in fact it is more generally a predisposing cause of the latter disease, and instead of being produced by it, is more often cured by it; M. Ricord proceeds to describe his mode of operation.

"The hair must be shaved from the genital organs on the side to be operated on, and the veins must be dilated by making the patient walk about a little, or by enveloping the scrotum for a few hours in hot poultices, or by fomentations. This being done (though if the swelling is at all times considerable these precautions are unnecessary) the vas deferens must be separated from the mass of veins, and the latter being taken up with a fold of the scrotum, a flat lance-shaped needle, armed with a double-looped thread must be passed beneath them. When the needle has been passed completely through the skin from one side to the other, the veins are to be let go, the skin alone being now held up, and then a second needle, similarly armed must be passed through over the veins, entering at the same hole by which the first needle was thrust out, and passing out at the same hole by which the first entered. The bundle of veins is thus fixed between two double threads, of which one passes over and the other beneath it. The ends of each double thread on each side are then to be passed into the loop of the other, and now, by drawing these ends in opposite directions, the vessels are tied beneath the skin. By this kind of ligatures the vessels may either be suddenly constricted or be tied gradually in a manner something like that adopted by M. Breschet, or most conveniently by a properly adopted *serre-nœud* after the fashion of a tourniquet.

"It is usually from the tenth to the twentieth day that the vessels are divided by this means, and their division may be easily recognised by the freedom with which the

ligatures may be drawn from one side to the other, without being, as they were before, retained by the parts which they inclosed. It sometimes happens, that at the instant of the first constriction the patient suddenly feels rather an acute pain in the course of the spermatic cord; it is usually less severe than in the other operations for the same purpose; and though it often occurs at the successive constrictions, yet it has never been long continued, nor given rise to any accident. It is sufficient to keep the scrotum raised, to employ some anodyne frictions on the inguinal canal or the lumbar region or to apply some emollient poultices, to effect its removal. Sometimes a slight œdema of the scrotum supervenes, and I have twice observed rather a considerable serous effusion in the tunica vaginalis. In one patient, also, who went out of the hospital and in a few days after the operation exposed himself to great fatigue, a slight abscess formed in the cellular tissue; but with these exceptions, there has been no important accident.

"It must be clearly understood, that if the patient is strong and plethoric, he is to be bled from the arm directly after the operation; that the horizontal position must be maintained till the vessels are cut through; and that the bowels must be carefully kept open.

"Twelve patients have now been operated on in this manner at the Venereal Hospital, and in all the most complete and satisfactory result has been obtained. The three last of them were presented at the Academy of Medicine; two completely cured, and the third, who was operated on only two days previously, still wearing the ligature and the *serre-nœud*.

"I have employed the same method for varices of the legs. I have already operated on nine patients, some having simple varicose swellings, and others varicose ulcers. In some a single ligature was sufficient, in others as many as four were applied. In none have there occurred any symptoms of phlebitis; the varicose veins have been obliterated and the ulcers speedily cicatrised; and in one of the patients whom I saw six months after the operation, there was no relapse. Still, however, I do not think that this method is likely to be so successful in all cases of varices of the lower extremities as in those of varicocele."—*Bulletin Generale de Therapeutique. Mars*, 1840.

Congenital Dislocation of the Humerus reduced after Sixteen Years. By M. GAILLARD, Surgeon to the Hotel Dieu, of Poictiers.

THE following is an abstract of a report to the Royal Academy of Medicine, drawn up by MM. CANNET and BOUVIER. They consider the case as very curious, and without a parallel in the history of surgery.

Mademoiselle L. B. a few days after birth presented a deformity of the left superior extremity with much pain during its movements. The elbow was thrown from the body, the forearm semiflexed, and the hand in a state of pronation. During her infancy she could not bring the elbow near the trunk, nor raise her hand higher than the chin. The limb was often painful during her early years; but latterly the pain had only come on when the limb had been long fixed in one position. When M. GAILLARD saw her in 1836, she was sixteen years of age. He found in the posterior part of the shoulder a projection formed by the head of the humerus, which was placed in the subspinous fossa of the scapula, above the middle part of the spine, which was curved by the pressure it had undergone. On moving the arm, the head of the bone was felt rolling under the fingers, and it appeared abraded from rubbing on an irregular surface. The hand could not be brought to a state of supination. The forearm could not be extended on

account of the permanent contraction of the biceps. Elevation and rotation of the arm were impossible.

On the 5th of January, 1837, the patient was placed on a stool, a cushion was applied to the external border of the scapula and maintained by two cords passing from its extremities and attached to two fixed rings. The arm directed horizontally inwards was then submitted to the action of a weight of sixteen pounds. The weight was suspended at the end of a cord which passed through a fixed pully, and was attached to a bracelet fixed above the elbow. Time after time M. GAILLARD increased the power of the traction, occasionally adding his efforts to the force exercised by the weights. The extension prolonged from twenty to twenty-five minutes was repeated on the 10th and 11th of January, each time bringing the head of the humerus nearer the glenoid cavity, and with no other inconvenience than a slight pain and swelling of the arm. On the 13th the head of the humerus was more moveable. Further traction was employed, the arm being always placed horizontally. The humerus yielded, glided over the scapula for the space of an inch and a half, and approached the glenoid cavity. M. GAILLARD then seized the elbow, and by carrying it backwards and upwards he directed the head of the humerus downwards and forwards, then lowering the limb he felt the head pass under the acromial arch, and leap over a projection which appeared to belong to the articular cavity. The arm was now in contact with the trunk, it was sensibly lengthened, and all its movements could be executed with ease.

The dislocation, however, recurred again and again, and was as often reduced. The difficulty was to maintain the bone after reduction. This, however, was effected by careful bandaging. The patient suffered considerable pain at times, but was relieved by the application of leeches. From the first reduction to the entire cessation of pain, a period of more than two years elapsed; but the cure was then complete, the patient using the limb equally as well as the other.—*Bulletin de l'Acadamie Royale de Medecine.*

New Operation for Prolapsus Ani. By M. ROBERT.

RELAXATION of the sphincter ani being the cause of this disease, all the remedies hitherto employed for its cure are inefficacious when it arrives at the last stage, as they can only act on the mucous membrane of the rectum. These reflections have induced M. ROBERT to shorten the sphincter in proportion to the amount of relaxation, so that the two cut surfaces of the muscle might unite and form a narrow ring to oppose to the descent of the mucous membrane. This operation was performed with success on a washerwoman, thirty-three years of age, in June, 1839, in the hospital of La Pitie. This woman in her third pregnancy had a prolapsus ani, which was only temporary, though it caused some pain. Her fourth pregnancy produced a prolapsus uteri, a permanent and considerable prolapsus ani, with relaxation of the abdominal walls. M. ROBERT excised a portion of the mucous membrane with some temporary relief; but the disease afterwards increased, the discharge of fæces became involuntary, and she suffered from pains in the loins and upper part of the thighs. When she entered the hospital, the sphincter was so much relaxed that four fingers could be easily introduced.

The patient having been prepared for the operation by progressive diminution in diet, and the use of opium in order to effect long-continued constipation, M. ROBERT proceeded to operate in the following manner: An incision was made on each side of the anus, each incision being commenced a few lines external to the orifice, and carried backwards towards the coccyx. The fold of integument between the incisions, together with the portion of sphincter it covered, were removed, and the muscle was thus short-

ened by half its length. The wound was united from one side to the other by three points of suture. On the sixth day after the operation, the sutures were removed. Union was nearly complete, but a fistulous passage remained from the anus to the coccyx. On the fifteenth day the woman had not passed any fæces. On the next day, the want of defecation being felt, in order to prevent any straining, the bowels were relieved by the curette. On the forty-first day the patient, who before the operation could not retain her fæces, kept an injection during the whole day; there was no more prolapsus; the opening had become of the ordinary size; but the finger when introduced did not experience the energetic contraction of the sphincter which occurs in the normal state. With the exception of a slight protrusion of mucous membrane, the cure was complete in August.—*Gazette Medicale. Juin* 20, 1840.

Congenital Cataract.—Operation.

Daniel B. Leavitt, aged thirty-two months, was brought into the Infirmary on the 9th of June, with congenital cataract of both eyes. The child was in good health, with no disposition to inflammation. It was decided to perform the operation of division of the capsule.

A solution of belladonna was applied to the eye at half past twelve. At three, P. M., the pupil was sufficiently dilated, and the operation was performed on the left eye with a *fine cambric needle* passed through the cornea a little more than a line from the sclerotica, and making three or four cuts in the capsule. Very little after-treatment was necessary, no application was made to the eye, not even a shade. The child was permitted to be about his play as usual, and was carried home on the fourth day from the operation. In five weeks the opacity was entirely removed, and the child seeing well.

The success of the operation on this eye was so complete it was thought advisable to operate on the other. The child was accordingly returned on the 16th of July, and the operation performed on the right eye in the same manner as on the first.

17th. Child restless. Considerable inflammation, and disposed to avoid the light. Prescribed a cathartic; warm bath to the eye, and exclusion of light.

18th. Inflammation, restlessness and fever increased. The child lies on his face so as entirely to exclude the light. Four leeches applied to the temple, baths continued, and solution of antimony given.

19th. All the symptoms have yielded, and the child comfortable and playful. 22d. Carried home. 27th. No inflammation, absorption has commenced; avoids strong light, or shades the eye last operated on, with his hands, when exposed to it.

Oct. 9th. The operation has been perfectly successful on both eyes, and the child sees well, with the exception of some indistinctness occasioned by the remaining uncontrollable motion of the eyes.

The only difficulty encountered in the operation was the *extreme mobility* of the eye, which could not be controlled until it was entered and fixed by the needle. The operation on both eyes should be performed at the same time. JOSIAH CROSBY.

Meredith Bridge, N. H. Oct. 17, 1840. *Boston Med. & Surg. Jour.*

Successful Case of Cæsarian Section, with Suture of the Uterus. By Dr. Godfroy, of Mayence.

On the 27th of March, 1840, Dr. Godfroy was called by M. Renant to a poor woman who had been two days in labor, the term of gestation was stated to have passed over by

fifteen days. The patient was of small stature, of a slight and ricketty constitution, with that malformation of the hips which gives the peculiar characteristic walk to women so effected. She was married to a man of similar constitution, and her age was forty-two. Dr. Godfroy having passed the entire hand into the vagina, discovered a portion of the cranium in the form of a wedge, the bones of which crossed each other at the sutures. The summit of the head was wedged between the sacro-vertebral angle (which was very prominent) and the pubis, this space not exceeding two inches. Delivery, even with the assistance of the forceps being therefore impossible, and the woman beginning to give way under the excessive pains, it was necessary that something should be promptly undertaken. Three modes presented themselves: first to perforate the cranium and remove the trunk piecemeal; secondly to perform symphysotomy; and lastly, the cæsarian section. From the peculiar circumstances of the case, the first of these methods seemed fraught with great danger, and the life of the infant being ascertained was another objection. It appeared further impossible to afford a sufficient opening to give play to the forcepsby dividing the symphysis, and the cæsarian section was therefore attempted. The patient was placed upon a table, furnished as a bed, with her head depressed, and her legs raised and everted. Every means being adopted by emptying the bladder, &c. to render the skin lax and fix the uterus, the operator made a vertical incision from the umbilicus almost to the pubes. The integuments having been divided tissue by tissue, the peritoneum was opened cautiously, and lifted up while the incision was prolonged upwards and downwards. The folds being turned back, the uterus was carefully opened about the median line. The placenta was fixed to the anterior part of the uterus, and was readily recognised, seized and withdrawn by the hand. The infant was very carefully removed by the feet and the umbilical cord divided; the child uttered a cry and was saved. Its weight was about six pounds and a half. No vessel required tying. The uterus was held near the abdominal orifice and cleaned, and then being left to itself contractions immediately came on, and all hæmorrhage ceased. The wound in the uterus, however, did not readily unite, but left a considerable space between the edges. Some points of suture were therefore applied by means of common needles, armed with double waxed threads, and passed through the whole thickness of the wound. The reunion was perfect, and then the uterus was entirely abandoned. The abdominal orifice was closed in a similar manner through the whole thickness of the integuments, even including the peritoneum. The edges were perfectly united, except at the lower part where a small orifice was left for any suppuration which might ensue. Charpie and a strong bandage being applied, the patient was placed in bed with her head and knees elevated.

Some slight fever arose, and the patient was twice bled. During the two succeeding days the usual sanguinolent evacuations issued from the vulva. The dressings were removed on the first of April, and were found scarcely soiled by suppuration. Fresh charpie, steeped in cream, was applied and left till the 6th, when the union appearing firm the threads of the sutures were all divided and the wound simply dressed till the 24th, when there existed no trace of suppuration. There was no fever, and the patient left her bed on that day, taking care to sustain the cicatrix with a bandage. The cure was perfect.

M. Desormeaux and others have strongly objected to the sutures of the uterus. Dr. Godfroy thinks their danger has been exaggerated. At all events the rapidity of the cure in this case without the occurrence of any accident is very remarkable.

Gazette Medicale. 11 *Juillet*, 1840.

MISCELLANEA.

Red Sulphur Springs.

I PASSED on without stopping long at any of the springs until I reached the Red Sulphur, which is the most distant of them. It is situated in the county of Munroe, seventeen miles from the Salt Sulphur, and of course forty-two miles from the White. The spring is concealed in a glen in the midst of hills, which surround it completely, forming, however, a narrow valley, the length of which is much greater than the breadth. These hills were at one time covered with high trees, but the proprietor of the spring, Mr. BURKE, has cleared them away from a well-grounded apprehension on the part of the invalids that they obstructed the circulation of the air, and rendered the place damp. The hills shelter the buildings and the whole inclosure from the cutting winds which are often felt in the springs near the Alleghany mountains; the climate, therefore, is extremely mild in the summer season, and subject only to one inconvenience—the damp fogs and occasional chillness in the evening; this is, however, readily guarded against by a little fire in the cabins. Most of the invalids avoid walking after sunset, or in the early part of the morning until the dew is cleared away.

The summer climate is therefore not unexceptionable; but is still vastly better for a pulmonary invalid than the excessive heat of the eastern plains or the cold breezes of the sea-side. In pulmonary cases, properly speaking, I have observed no inconvenience; but I have met with asthmatics who were injured quite seriously by a journey to the mountains, which was incautiously advised by their medical attendant. The sharp air and the alternations of temperature produce much greater effects upon them than on those who are disposed to tuberculous diseases.

The reputation of the Red Sulphur Springs is chiefly founded upon its efficacy in either alleviating or curing pulmonary diseases, including catarrhs of long standing, and commencing tuberculous cases. Even in patients who have long labored under the latter form of disease, the benefits of the spring have been much sought for. A reputation of this kind, which arose gradually, and was sustained for many years, notwithstanding many disadvantages of situation and an absolute dearth of comfortable accommodations for the sick which then existed, cannot be unfounded. It is true that an exaggerated estimate of the powers of the water, and a carelessness in the selection of patients who have been from time to time sent to the spring, have produced an impression which is unfavorable to its true value.

I met with a remarkable instance of this. On my return from the Red Sulphur, at the Salt Sulphur I found a young married lady who had just arrived from a long journey of sixteen days; during this whole period she had labored under a colliquative diarrhœa, and an exhausting hectic, with the thick yellow expectoration which indicates the rapid softening of tuberculous matter. I was then called to see her in consultation with a gentleman from the same part of the country in which she resided, and found her rapidly sinking; at our earnest request, the friends of the lady, who were utterly unconscious of her danger, consented to give up their intention of proceeding farther; she died the next day, and but for our interference, would have sunk in the course of the last day's journey. These extreme cases are not frequent, but there are many instances in which much mischief arises from advising patients in the last stages of pulmonary phthisis to resort to the Red Sulphur, precisely as in similar circumstances it is pernicious and morally wrong to direct them to abandon the comforts of home in the vain hope of

seeking for health in a warmer climate. No patients who are exhausted by hectic fever, and copious purulent expectoration proceeding from cavities should be sent to a distant place; and a long journey should be still more sedulously avoided if there is much diarrhœa. The latter symptom is generally aggravated by the journey, and the patient is besides unable to take the Red Sulphur water in sufficient quantities to produce any sensible effects; for the quantity, rather than the quality of the water, tends to increase the discharge from the bowels. It is under certain circumstances desirable for invalids in the last stages of pulmonary disease to leave their accustomed air, and seek for a restoration of strength, if not an entire recovery; but these persons should seek a nearer retreat, and one exempt from the fatigues of a mountain journey.

The explanations which are given of the mode in which the water of the Red Sulphur Spring acts in relieving phthisis, do not seem to me to be well founded. It is thought that it has a direct power of diminishing the frequency of the pulse. It is true that this result does follow in a certain proportion of cases; but on a careful examination of many patients who took the water, I found that this effect did not occur at the beginning of many of the cases. It is true that when the irritation of the disease was to a certain extent subdued, the pulse became less frequent, but this did not appear to result from any peculiar action of the water. Its first action was that of a sedative, perhaps more nearly resembling minute doses of hydrocyanic acid than any thing else. It caused a tendency to sleep in nearly every patient, and in some gave rise to considerable headache, and a disagreeable sensation of fulness, which lasted for a few days. The water passed off by the kidneys, producing little effect on the bowels or the skin. It may, however, be readily determined to the surface by proper attention to warmth.

The quantity of water taken is very various; in former times it was much more freely drank than at present; invalids now rarely take more than eight tumblers, about three pints, in a day. But if the water does not produce a permanently disagreeable effect upon the alimentary canal, it may be properly taken in much larger doses, say from ten to twenty glasses of the kind usually employed at the spring. But while taking the water, the invalid should take constant and regular exercise; this precaution is one always to be observed when using mineral waters, but certainly by no class of patients more faithfully than those disposed to phthisis. Yet simple and obvious as is this rule of hygiene, the patients have of late been singularly negligent in this matter, and often limit their exercises to an occasional game at ninepins, and a quiet stroll about the grounds. The water should be taken in divided quantities before each meal, but especially before breakfast. Thus, if the allowance be eight glasses, three of them should be taken before breakfast, in the space of an hour or two; two before dinner, allowing the same period for it; one before supper, and two in the evening. But between every glass, as much exercise as practicable without producing fatigue, should be taken if the weather be fine. If the morning should be cool, it is proper either to exercise within doors, or in the piazzas, which, at the Red Sulphur, extend several hundred feet in length.

Much of the benefit of mineral water depends upon the facility with which it is absorbed, and as it were, diffused throughout the system: this diffusion is greatly promoted by vigorous exercise, which prevents the unpleasant sensation of a load or fulness at the stomach, that often occurs under different circumstances. Exercise is more necessary while taking a water like that of Red Sulphur, which contains but a very small proportion of saline matter, and depends for its action chiefly upon its gaseous elements, which are less readily determined towards a particular organ.

The red deposit which gives name to the spring is less copious this year than usual; in fact it is scarcely a deposit; a portion of sulphur is combined with a peculiar organic

substance, apparently some variety of the cryptogamous plants. The spring has been carefully cleared out, and the sides for the deposition of the plant may have been removed. Some of the old visiters to the spring fancy that the strength of its waters has been impaired by the copious rains of the summer, but this opinion does not obtain amongst others.

The action of the water is certainly that of a mild alterative, as well as sedative, and it is useful not merely in cases of commencing phthisis, but of many sub-acute inflammations of the mucous membranes. Indeed, in pulmonary disease the water is apparently most beneficial in the stages of the diseases in which there is a slight irritation, sufficient to cause some feverishness, but not to give rise to very acute symptoms. The acute forms of phthisis are usually aggravated by a residence at the Red Sulphur; at least this was my experience during the present summer; but this aggravation manifestly depends more on the irritation of the journey and peculiarities of climate, than on any action of the water. The therapeutic rule, that much exercise, or excitement of any kind, is injurious in acute phthisis, always holds good.

The disorders of the mucous membranes in which this water is the most useful, are chronic inflammations of the stomach and bowels, especially the varieties which are sub-acute from the beginning: when the case is one of chronic dysentery following the acute form of the disease, the good effects of the water seem to me more problematical; but of this I have no personal experience. In chronic irritation of the urinary passages a like good effect has often been noticed; I recommended it in cases of this kind, but was not able from my own experience to confirm the results which have been previously observed. In these diseases the water acts medicinally by its alterative virtues; in the functional diseases of the heart the action of the water is more complex, and is partly derived from its alterative, and partly from its sedative qualities. An interesting case of this kind occurred to me: a young gentleman, a student of the University of Virginia, was affected with a disease of the heart, chiefly symptomatic, and dependent upon nervous derangement and dyspepsia, but in part connected with a real enlargement of this organ. After remaining some time at the White Sulphur without benefit, he resorted to the Red Sulphur,—and after taking the waters for a few days with the usual precautions, his symptoms rapidly declined. A single case of this kind is of no value, but the general experience is decidedly favorable to the effects of the water in this form of disease.

A mild mineral water like the Red Sulphur, which contains, it is believed, but little more active ingredients than sulphuretted hydrogen and nitrogen gas, must derive much of its virtue from the temperature and quantity of the water. The medicinal ingredients act probably quite as effectually by the direction which they give to the water, as by the remedial properties peculiar to themselves.—*Medical Examiner.*

On the best means of burning gas for heat. By Sir John Robison, K. H., Sec. R. S. E., M. S. A.*

"Vix ea nostra voco."

When carburetted hydrogen gas is employed in producing heat, it is seldom required that it should at the same time give out light; the combustion may, therefore, be managed in any mode which may be convenient without seeking to preserve the illuminating

* Read before the Society of Arts for Scotland. The special thanks of the Society were awarded to the author.

power. It appears to have occurred about the same period to Dr. Duncan and to myself, that, by passing a current of gas, mixed with atmospheric air, through a wide vertical tube, having its upper end covered by a diaphragm of wire gause, and by kindling the mixture as it escaped through the interstices of the wire cloth, a convenient stove might be formed for culinary purposes. Dr. Duncan applied some small apparatus on this principle to pharmaceutical operations in his class room, and I had my kitchen furnished with a range of large stoves, which were intended to supersede the use of French charcoal stoves in various culinary processes. In both cases the success has been perfect, and the same principle has been adopted with advantage in a variety of processes in the useful arts, where this neat and cleanly method of applying heat has rendered it a valuable acquisition to the work shop. The form of the apparatus may be varied in any way to suit the particular process to which it is applied; as all that is essential is, that a current of the mixed gas and air shall rise through wire cloth, and that the proportion of gas to atmospheric air shall never be so great as to allow the flame to become yellow, as, with this precaution the combustion of the carburetted hydrogen will be complete, and no deposit of soot will take place on cold bodies when set over the flames; the proper quantity of gas in the mixture is easily determined by the stop cock belonging to each stove.

For ordinary purposes the cylinders may be thirty inches long, and three or four inches in diameter, and the wire cloth for the stove should have thirty wires to the inch. That which is manufactured for safety lamps answers well for this purpose.

Whenever from accidental injury or decay, a hole takes place in a diaphragm, it is no longer possible to use it; as when lighted, the flame passes through the fracture, and communicates with the flame at the bottom of the cylinder, which then burns like an ordinary gas light, and like it, would blacken the surface of any cold body presented to it. The wire cloths, if not broken through by violence, will last for months although in daily use; and if covered by a layer of coarse sand, or pounded limestone, will continue serviceable for an unlimited period.

When more intense heat is required than is attainable by the unaided combustion of the mixed gases, recourse may be had to various forms of blow pipes; and when a large volume of such flame is to be employed, the current of atmospheric air may be urged by double bellows. A very efficient apparatus on this principle is to be seen in the laboratory of Dr. B. Reid.

It is to be regretted that such applications of gas are not more generally known and introduced into work shops, as there are numerous processes in the arts in which they would afford facilities to the workman which he can scarcely command by any other means. For example, in the hardening of steel tools, it is well known that a piece of bright steel, when heated to redness in a forge or muffle, is subject to oxidation and that a black scale remains after hardening, which it is difficult to remove without some injury to the work, as in the case of a screw tap; whereas, if the same piece of steel be heated in a flame of the mixed gases, where there is no free oxygen to attack its surface it may be *made and kept* red hot without injury to its finest edge; it will be discolored, but without losing much of its polish. The artist has also the advantage of a distinct view of the article while it is being heated, and the power of withdrawing it from the flame the moment it has acquired the proper color, which, in the hardening of cast steel cutting tools, is of great importance.

Many attempts have been made to apply carburetted hydrogen and pure hydrogen gases to the purposes of warming buildings, and various forms of stoves have been proposed, on the understanding, it would appear, that, by applying the flame of the gas to the metallic bodies an increased degree of heat would be communicated by them to the

atmosphere around. A little consideration will show, that however the *distribution* may be modified by such contrivances, there can be no increase of the heating power; and that when a certain measure of gas is fairly burned, the heat evolved into the apartment will be the same whether the flame be disposed as a light, or made to play against metallic plates or other combinations of apparatus. In all cases where the products of combustion are allowed to mix with the atmosphere of the apartment, without provision being made for carrying them off by ventilation, the effects of such processes must be more or less deleterious to health, according to the proportion these products bear to the mass of air they mix in. On the whole, it may be assumed, that this mode of heating apartments is the most expensive, the least efficient, and, excepting that by Joyce's charcoal stove, the most insalubrious that can be resorted to.—*Edin. New Phil. Journ.*

OBITUARY NOTICES.

Died on Monday night, the 12th of October, after a brief illness, Dr. Mifflin Coulter, Surgeon of the United States Navy, in the 42d year of his age. The deceased studied medicine under his venerable uncle, Dr. John Coulter, late of this city, and entered the service of the United States, as Assistant Surgeon about fourteen years ago, and was soon advanced, by his talents, industry and skill, to the first rank in his profession, the duties of which he performed with the greatest attention and fidelity. He enjoyed the respect and esteem of all with whom he was officially associated, and the entire confidence of the Navy Department. In those sterling virtues which dignify and adorn human nature he had no superior, and his presence and sprightly conversation always diffused happiness and joy. Amidst professional cares, he yet found leisure to cultivate a taste for literature, and some of his prose and poetical effusions would do honor to the best writers of our country. As a friend, he was firm, frank and sincere. As a husband and father, most tender and affectionate, and his death has left a void in the hearts of his bereaved relatives and friends, which time cannot fill. Indeed, of the deceased it may be truly said:

"None knew him, but to love him,
None named him, but to praise."

N.

We hope to give a more extended notice of our friend, Dr. Coulter, in a subsequent number of the Journal, from the pen of one who knew and appreciated his worth.—Eds.

Died of pulmonary consumption, at Boonville, Missouri, Dr. Samuel H. Lyon, son of Major Robert Lyon, of Baltimore county.

Dr. Lyon was a graduate of Harvard University, and fitted himself for his profession under the private tuition of Dr. Buckler, and the public courses of the Maryland University. He was chosen one of the physicians to the Baltimore Dispensary soon after his graduation; and subsequently elected Demonstrator of Anatomy in the University of Maryland. Dr. Lyon has left many friends, who cherish the recollection of his virtues, with mournful pleasure.

Died at his residence at Elk Ridge, Anne Arundel county, Md. on the 27th of October, in the 55th year of his age, Dr. Charles G. Worthington.

Seldom has it been the misfortune of any community to sustain a heavier loss than the relatives and friends of Dr. WORTHINGTON have felt by his death; for whilst his professional services claimed and received the testimony of this community's gratitude, it is upon the recollection of his domestic character that his friends will longest delight to dwell. His example as a citizen and as a man is indeed precious. In the close relations of husband, father and brother, he was most exemplary.

There were few among us who have been so often solicited to accept the trusts of executor and guardian; with how much fidelity and skill he executed these trusts, when accepted, can best be told by those who have been the objects of his care. He was eminently and disinterestedly the friend and counsellor of the widow and the orphan.

There was much in the character of Dr. WORTHINGTON that commanded respect, and much which conciliated affection and esteem. Urbanity, integrity and wisdom were its most prominent traits. In his manners he was dignified without reserve; always affable and accessible to all. In the family circle, his benign aspect, his cheerful pleasantry, and his manly and instructive conversation, will be fondly remembered long after the recollection of his professional services shall have faded from the public mind. That circle so lately enlivened by his presence, cheered by his smiles, and guided by his paternal counsels, is now desolate. The wind has passed over him, and he is gone. God has changed his countenance and sent him away. His pure spirit, spared the agony of a painful conflict, was released without a struggle.

Elk Ridge, Nov. 2, 1840.

DIED on the 22d instant, at White Post, Clarke county, Va., Dr. H. W. SNYDER, formerly of Baltimore.

SIR ANTHONY CARLISLE died on the 2d November, in the 73d year of his age. This eminent surgeon has been long numbered among the most distinguished anatomists, physiologists and naturalists of the age. During a period of sixteen years he was professor of anatomy and lecturer to the Royal Academy. He was also surgeon extraordinary to George IV.

ERRATA

IN ARTICLE ON DELIRIUM TREMENS,

Fourth Number of the Maryland Medical Journal.

Page 448, 9th line from bottom, for "*tremulence,*" read, tremulousness.

Page 452, 11th line from top, and same page, 5th line from bottom, for "*effusion,*" read, affusion.

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